

Calcutta that the persons whose property has been hitherto so much undervalued are precisely those who, *if any*, ought to pay the highest rates, whether tested by the principles of general equity, or by the more special grounds of the value of municipal services rendered. If I were to go fully into this question, it would unduly lengthen this report; if, on the other hand, I deal it with briefly, I expose myself to a variety of easily-met criticisms. I have, therefore, as in the case of "the rating of mansions," devoted a note (Appendix B) to the full discussion of the subject, giving only an abstract of it here.

26. Rates on property in towns are paid partly by the persons made directly liable for them, partly by those on whom these persons can eventually throw them. If strict competition rents were paid, it would not matter much who was primarily liable: the eventual incidence of the rates would follow general laws. But as a fact custom and other causes often go far to arrest the operation of these general laws. Hence it is desirable to follow some equitable system in the primary demand of rates. The new Act follows the principle of consolidating all the rates into one and dividing the demand between the owner and the occupier. This is in exact accordance with the recommendation of Mr. Goschen and his Select Committee on local taxation, which reported in 1871. As regards the eventual incidence of these rates, it is an admitted principle that a wide distinction must be drawn between that portion of the rates which is levied on the value of the ground, and that which is levied on the value of the building on it. The former eventually falls on the ground landlord, and in large cities is a tax on the unearned increment in the value of the land; the latter falls on the occupier as the consumer.

27. The first is by general consent one of the fairest and best taxes that can be levied, inasmuch as this enhanced value, which comes to the landlord without any expenditure or effort on his part, is both created and maintained by the influx of population into the city and by the expenditure of the taxes necessary to maintain it in a habitable condition. Now it will have been observed that the ground landlords are the class that on the whole come off best under the former system. The most overtaxed group (No. 4) are the owners of tiled huts, to the taxation of which the ground landlord contributed nothing. In groups 1 to 3 he suffered in common with the occupiers by the absence of any allowance for repairs; in groups 5 and 6 he gained relatively by being fairly rated while others are overrated; and in group 6, where the undervaluation is most conspicuous, the house-owner is in every instance the ground landlord.

28. Again, were the house-tax a tax instead of a rate to pay for services rendered, business premises, or that portion of a residence which is occupied for business purposes, ought not to be taxed at all (Mill Book V, Chapter VII, section 6, foot-note). Where, as in a large city, what is levied is a rate to defray municipal expenditure, they ought to pay *pro tanto* for the benefits they receive, but nothing more. These, however, are nearly always less rather than more than the services rendered to residential houses; and as business premises are usually to be found in that part of the town in which ground values are highest, they pay proportionately more than other classes of the community. I invite attention to that part of my note in which I have shown the indisputable extent to which in Calcutta the owners and occupiers of business premises pay the taxes of the owners and occupiers of residential houses, whether European or Native, though of course far more of those whose houses are much under-assessed, than of those who have rather been over-assessed.

29. Unfortunately the matter does not stop here. Not only do the productive classes of Calcutta pay largely the rates for the unproductive classes, but they are specially taxed in addition. Calcutta raises more than 2½ lakhs per annum by a special tax on trades and professions, though it is easy to show that on general principles there is the gravest possible objection to the special taxation of this class.

30. Lastly, if the special services rendered by the Corporation are looked to, we arrive at the same result. This is most conspicuous in the case of the water-supply: 30 per cent. of the rating of the town is for the supply of water, and it is notorious that the large Government offices, the Port Commissioners,

and the business parts of the town generally, have not taken anything like their fair share of water, while residential houses, European or Native, but above all those family houses which are occupied by their owners, have taken enormously more water than they have paid for. Similar results are found in regard to lighting, drainage, road repairs, conservancy, police and other services for which municipal rates were being levied; full statistical information on these heads is given in the annexed note (Appendix B), which I think leaves no room for doubt as to the very large extra taxation that is paid by the commercial and trading sections of the community.

31. I must submit, therefore, that, when I was entrusted with recasting the Municipal Act, I was bound both to draw the attention of the Legislature to what I think can only be correctly termed the scandal of the undervaluation of houses occupied by their owners, and to suggest some means for its remedy. Practically, owing to a variety of causes, the valuation of these houses and the interpretation of the principles applying thereto, had fallen into the hands of the very persons who owned and occupied them. Many of them were honourable men, who were unconscious that they were unduly favouring their own class; but all history shows that whenever a class interprets principles in its own cause, it tends to interpret them very much in its own favour, and therefore the first and most necessary measure was to leave the valuation of premises in the last resort to a judicial tribunal, the Small Cause Court, after preliminary decision by the Executive of the Corporation.* This has always been the rule at Bombay, where I learn on enquiry that this class of houses has never been conspicuously undervalued, because the rental of houses occupied by their owners has always been estimated by comparison with other houses built for letting, and an adequate demand for renting them always assumed.

32. This might have been adopted as the second part of the remedy in Calcutta, but the dissatisfaction it would have caused would have been so great, and the allegations of unfairness against the Municipal Executive which it would have entailed so plausible, that I thought it inexpedient to leave the question to be solved in this way. In Calcutta, if the prejudice against hiring such houses were ignored, and if the value of the tenancy were calculated by comparison with houses built for letting purposes,† I say advisedly that the enhancement of residential houses would have been much greater than it is now under the present Act. Where, under the present Act, a valuation has gone up 30 per cent., it would in this case have gone up 50 to 100 per cent., and the superficial inference would have been that ignorant and oppressive functionaries were enormously over-estimating the hypothetical rental and were being led away by fallacious analogies, where experienced Commissioners, who knew what they were about, had come to very different conclusion.

33. The advantage of the proposal adopted by the Act is that it carries, on the face of it, its own justification—a point of enormous importance in a controversy of this kind. In all ordinary cases the cost of building plus the value of the land occupied by the tenement, obviously determines the *reasonable* rent; and even the most

* This is described in the memorial as a measure subversive of Local Self-Government. To this I emphatically demur. So far from being the essence of Local Self-Government, it is the bane of it in India, where election tends to place the preponderance of power in the hands of a single section of the community, and subjects that section to the special temptation of class administration in its own favour. The best service that can be done to Local Self-Government in India is to shield it from these dangers, to guard against the preponderance of any single class, and not to confer on Commissioners quasi-judicial functions in matters in which they are personally interested. On this subject see Appendix D which goes into the matter more fully. As to the allegation that the hearing of these objections is tantamount to a denial of justice, it is devoid of any foundation. If the Lieutenant-Governor will see fit to satisfy himself in this matter, he will find that the objections are enquired into far more thoroughly now than they were when they went before benches of three Commissioners.

† In corroboration of this, I may note that in trying objections under the Act in Ward No. 1, I came upon two small houses that had recently been built for letting purposes and were let out, and I had them measured and valued precisely the same way as I was valuing houses occupied by the owners. The following was the result:—No. 115-1, Cornwallis Street, valued as under the Act at Rs. 239 per annum, actually leased for 40 rupees per mensem including tenant's rates, or deducting these and 10 per cent. for repairs, Rs. 393 per annum. This lease was only a temporary one. Second case 115-7, Cornwallis street, valued as under the Act at Rs. 290, leased out to a regular tenant for Rs. 35 per mensem including tenant's taxes, equal to Rs. 344 per annum, exclusive thereof and allowing for repairs. These instances are, I think, a very fair standard of the extent to which the present Act still favours residential houses.

Again, the police station in Ward No. 1 is a large residential house standing on a bigha of ground. I have as a test calculated the value of this house precisely as I have done those of objectors. At the outside I should make the annual ratable value at 5 per cent. Rs. 1,230. The police, having no sentiment against hiring a house, are expected to pay their value and the rent is Rs. 1,500 per annum. Allowing 10 per cent. for repairs as the Act does, this makes the ratable value according to the rent Rs. 1,350, at which these premises have actually been valued. This is a noteworthy case, because though the police are obviously free from any prejudice in such a matter, the existence of the prejudice among other possible competitors helps them to make good terms.

superficial acquaintance with Calcutta enables any one to know that a *net* return of 5 per cent. is an extremely moderate return for money invested in house property. If, therefore, this standard, when applied to houses occupied by their owners, greatly enhances the valuation, the result carries with it its own evidence of previous under valuation. Even in the case of houses built many years ago, the estimated present cost of building a similar house is what ordinarily regulates the rent which the old house can reasonably command. If an old house was built cheaply for Rs. 20,000, and could not now be built for less than Rs. 30,000, it would, making a proper allowance for depreciation, be able to command a fair return on the higher figure as its rental. If, on the other hand, the cost of building had declined, and a house built for Rs. 40,000 could now be built for Rs. 30,000, it could not command a higher rental than the fair return on Rs. 30,000. Ordinarily, therefore, whether in the case of old or new houses, no fairer test of their reasonable letting value can be taken than the estimated present cost of rebuilding them, less proper allowances for depreciation.

34. On the other hand, there are of course exceptional cases (which the memorialists would fain represent as ordinary cases), where this cost is no adequate test, and it is for this reason that the clause was added, allowing a lower percentage. This clause was carried by the vote of the Lieutenant-Governor supported by Sir Charles Paul, the four Native Members of the Council, and myself, against a minority, composed of Mr. Pratt, Mr. Moore, Sir Alfred Croft, Mr. Allen, Mr. Macaulay, and Mr. Reynolds. Looking to the very narrow majority and to the distinguished names which composed the minority, many persons may be inclined to doubt whether the proviso was judicious, but still I must adhere to the opinion that this clause was necessary to meet the objection which now falls harmless, but otherwise would have been unanswerable, that the estimated cost of re-building is not *always* a fair test of a reasonable rental. It might cost a great deal to rebuild what is often called a "folly" or even a castle with its keep, battlements and moat, but in these peaceable days, these adjuncts would rather detract from than enhance its real value. Again, a person's family may diminish in numbers and he can only occupy half or a quarter of his house; or his circumstances may fall off and it may become too expensive a house for him; or the site may become unhealthy. In such cases the fair rateable value of the tenancy to him may obviously be much lowered, and may be reduced to what he could get from an outside tenant. In the two former cases, supposing a house is fairly worth Rs. 200 a month to the owner when he has full use for it, but afterwards his capacity for fully using it declines, if it were still worth to him Rs. 150, but he could only get Rs. 100 from another tenant if he were to let it, he ought to pay on the Rs. 150, but if it were worth to him only Rs. 80, but he could let it for Rs. 100 to another tenant, then he ought to pay on the Rs. 100, because if he retains the house in obedience to a sentiment, however commendable, he ought to pay the difference between the market rental and the depreciated value to himself; or lastly it may become so unhealthy as to be worth next to nothing. To meet, all these cases *any* percentage less than five may be taken, and the provision is, I think, elastic enough to meet all the exceptional cases in which the estimated present cost of rebuilding is not a fair test of the reasonable rent.

35. I see that in discussing this question the *Indian Nation*, a weekly paper, whose excellent tone and thoughtful style of comment entitles it at all times to careful attention, and deservedly raises it to a foremost place among Indian newspapers, sums up in favour of taking a percentage on the market value as the fairest standard of reasonable rent. This was the contention of Mr. Justice Banerjee as a Member of the Legislative Council, and I admitted that if market value were so defined as to mean the same thing in municipal assessments and land acquisition proceedings, there would be much to be said in favour of this test which, as my note shows, is the one favoured of recent years in the valuation of mansion houses. But there is one serious objection to it in Calcutta, apart from the different decisions of what constitutes market value which the courts have given, and that is, that there is a difficulty in obtaining *purchasers* for houses built for residences by their own owners—not much less than the difficulty in procuring *tenants*. It has been put in evidence before me by the objectors in these valuation cases, that a person prefers to build a house for himself to buying one ready built, and the gentleman already quoted, Baboo Nil Money Mitter, a well-known

Civil Engineer, who has taken a great interest in these valuation cases and given much valuable evidence on behalf of the objectors, has not only asserted that no house, even the moment it is completed, can be sold for what it cost the builder, but has also drawn out a table, which will found in Appendix C, estimating the loss thereon at any sum from 10 to 50 per cent. according to the cost of the house.

36. If this is a fact—and to a certain extent I am prepared to admit that it is—it should inevitably lead to the result that no more houses would be built *if built for the purpose of selling*. If Messrs. Dykes and Co., as soon as they had spent Rs. 1,200 on a new carriage, found they could only expect to sell it for Rs. 1,000, they would cease building carriages of that kind till the demand increased and the price went up. But people, far from ceasing to build such houses in Calcutta, are now-a-days building them more than ever. The reason is obvious; they do not build in order to sell, but in order to enjoy the occupation themselves; and if the occupation is worth to them the money spent, they do not care much for the prospective loss should they be obliged to sell. *As long therefore as persons continue themselves to occupy the houses they build, market value is not a true or fair test of the rateable value.* If a person occupies a Rs. 40,000 house in Calcutta with his family for 20 or 30 years, there is no reason why he should be rated as if his house were only a Rs. 30,000 house, because if he had wished to sell it, which he did not, it would only have fetched that price.

5 PER CENT. IS A FAIR PERCENTAGE.

37. It remains to say a few words on the selection of 5 per cent. as the standard of actual value. Thus much I may freely admit, that if it were not desirable to take a uniform figure when first legislating in this direction, the percentage on land should be less than that of the cost of building. Land requiring no repairs, and being subject to but few risks, while it is almost certain to rise in value, an investor in it is satisfied with much less than an investor in buildings with all their contingent risks and expenses. 4 per cent. on land and 6 per cent. on buildings would be theoretically preferable to a uniform rate of 5 per cent., but as there are very few houses of this class in Calcutta in which the value of the structure does not exceed that of the ground, the owners gain rather than lose by the uniform rate. It will also be observed that the improvement of the town enhances the value of the land, not that of the building *per se*, and therefore if the land pays a little more highly than it should strictly do owing to the uniformity of the percentage, this is in accordance with substantial justice.

38. But it has been urged in this controversy that if a percentage must be fixed, 3 per cent. rather than 5 per cent. ought to be taken. It is difficult seriously to argue against such a claim as this. To begin with, interest in England is much lower than in India, and 5 per cent. here hardly represents a larger return than 3 per cent. there; but 3 per cent. is taken in England in the case of mansion houses situated in the country, chiefly taxed for the support of the poor, with express reference to the fact that agricultural land only yields a return of 3 per cent. Houses in Calcutta are rated with a view to the services rendered them by the Corporation to pay for their lighting, water, drainage, conservancy, &c. I think I have shown pretty clearly that even at 5 per cent. they will not pay for much more than half of what they receive, and any lower percentage would be a mere mockery of equality.

39. For these reasons the undervaluation of this class of houses was remedied in the new Act by the assumption of an annual payment of 5 per cent. on the true value of the house and land as the hypothetical rent, with a lower percentage to meet exceptional cases; while to remedy the overvaluation of other classes of houses an allowance of 10 per cent. was made for repairs and other expenses necessary to enable the premises to command the rent. Just as residential houses, will, if anything, remain somewhat undervalued under the Act, so houses valued according to their actual gross rental with an allowance of only 10 per cent. will still be somewhat overvalued. Land of course gets no allowance. Tiled huts were not given any exceptionally large allowance, as strictly speaking should have been done, owing to the desire not to overweight a new section with complexity. Moreover, their owners received material relief in another direction by the substitution of a uniform average rate of 2 per cent.

for the house service fees, which in the case of hpts averaged 10 per cent.; and by the provision of the law which makes their rates payable by the ground landlord, they are henceforth kept aloof from any direct contact with the municipal underlings—another great boon to them.

40. These being the chief changes in the law as regards valuation of premises, I would suggest that the Government should now allow the whole town to be revalued under the provisions of section 122, as it will be in less than four years' time. When the revaluation is completed, if the owners of houses built for their own occupation still maintain that they are unfairly treated, let a Committee of Engineers and Surveyors be appointed to examine the various classes of buildings in different parts of Calcutta, and contrast their respective valuations, allowing for the difference of price in *sites*. If they find that residential houses occupied by their owners are proportionately more highly valued than other classes of buildings, let redress be promptly given; but if, as I am confident will be the case, the verdict is the other way, then further steps should perhaps be taken to redress the balance; for it is surely intolerable that the group of rate-payers which, under circumstances of strictly equal rating, must inevitably enjoy far more advantages than they pay for, should not even pay equal rates.

41. The memorialists do not on the present occasion again refer to my inconsistency in not proposing to carry out the further recommendation of Mill for the entire exemption from taxation of all houses below a certain value "on the universal principle of sparing from all taxation the absolute necessities of healthful existence," but they quote the former memorial in which they do "not hesitate to affirm that it is a singularly unfair piece of legislation which, in the name of economic principles, seeks to lay a heavy burden upon the well-to-do classes, but will not provide for that relief to the poorer classes which these principles distinctly contemplate."

42. In the first place it is not correct to say that the new Act entirely ignores this. Section 455 contains a proviso that "it shall be lawful for the Commissioners to exempt the owner of any hut from payment of all or any rate in respect of such hut," and several huts of very poor persons have been exempted under this section during the past year; but if the Government is disposed to extend this, and make the exemption of all huts below a certain value obligatory on the Commissioners, I would not offer any opposition.

43. At the same time the result would be transparently the reverse to what the memorialists desire. The class whose cause they are advocating are persons who have spent from Rs. 2,000 to Rs. 2,00,000 of capital on erecting residences on their own ground; they do not surely expect houses of this class (though under the old law only assessed at from Rs. 4 to Rs. 300 a month) to be exempted. Obviously therefore the exemption of huts rented at Re. 1 to Rs. 2 a month will only increase the burden on residential houses. Moreover, as I pointed out in paragraph 25, the principle of rating proportionately to value is a safe working principle, the departure from which opens up an enormous number of questions of relative equity, which most certainly would not result in any further advantage to the ground landlords. Mill, also, is speaking of the taxation of houses for general purposes, a very different thing from rating for municipal purposes, when a distinct *quid pro quo* is given in the water, gas, roads, conservancy, &c., provided by the Corporation. I think those most experienced, even those who are entirely ready to accept Mill's principle, will admit that in section 455 the new Act goes as far in this direction as it was wise or expedient to go.

44. In concluding this part of my report, I will add a word or two regarding the statistics annexed to the memorial. Annexure A gives some statistics of the extent of enhancement in Ward No. 6. As I have already said, seeing that this is a case of revaluation after 6½ years, that during that time the value of land in that ward has almost doubled, that the figures include new houses and new additions to old houses, the increase, far from being too high, is, I fear, very inadequate—much too inadequate—were it not that rented houses have received a reduction of 10 per cent. on their gross letting values for the cost of repairs. As regards table B—houses in Ward No. 1 still under revaluation—even if the premises chosen were all revaluations of former houses, they would only show how inadequate

the former valuations were; but I find that they include new additions, and therefore as they stand they are obviously wide of the mark. The remark made "can it for a moment be supposed that those small houses had been underassessed under the old law" borders on the ridiculous. Tried by any proper system of comparison they were enormously under assessed. Though the assessments are small, the houses, especially towards the end of the list, are fit to be compared with houses rented elsewhere at Rs. 100 to Rs. 350 per mensem. The figures given in table C are a very natural instance of the wrong inference from correct facts. The cases, as I understand, are those of two residential houses which have been partitioned, the one-half being still occupied by its owner, the other being let to an outsider, presumably because the owner is unable to continue to reside in it. In the one case the half occupied by the owner is valued at Rs. 353, while the half let to a tenant at Rs. 144. In the other case the figures are Rs. 108 and Rs. 96. The difference in the second case is comparatively trivial. But what is the true inference in the first case except that if 5 per cent. on the cost price of a house gives Rs. 353 as the annual value, and yet a tenant of that class of house can only be obtained at Rs. 144 (2½ per cent.), how improper a test the letting value of that class of houses to persons other than the owners must be? Can any one in his senses suppose that capitalists in Calcutta are willing to invest money in building to get a return of 2½ per cent?

The figures given regarding objections obviously prove nothing unless it be the extent of previous undervaluations.

OBJECTION TO THE NEW BUSTEE SYSTEM OF RATING. SECTION 117.

45. II. The second feature in the new Act to which the memorialists have taken exception is the provision by which the ground landlord in bustees is required to pay all the rates, being allowed a deduction of 2 annas in the rupee for the expense and loss attendant on the recovery of the greater portion thereof from the hut owners.

46. The bustee tenure is one in which the landlord allows the tenant to build at his own expense a tiled hut on his land, and to pay him ground-rent for the use thereof. The tenant has no security of tenure and can be turned out at a month's if not a moment's notice. Under the old law in Calcutta, the landlord had to pay the owner's rates on the land which was assessed under one number. Each hut on it was separately assessed, the hut owner paying the occupier's rate on the bit of land occupied by him and the owner's and occupier's rates on his hut. Thus, if a bustee had 20 huts on it and its number was 50, Beadon Street, the huts would be 50H. 1, 50H. 2,.....50H. 20, there being in all 21 separate assessments. If in the middle of the year another hut was added, it would become 50H. 21, and the rental of the original number must be modified also. Thus, the municipal staff had for this one plot of land, this one number, to collect 61 separate bills from 21 different persons, 60 of which were recovered direct from the hut owners. In the Suburbs the case was worse, because there the hut owners were compelled to pay for the ground landlord as well, with a right of recovery of the amount from him! I have made careful enquiries and cannot hear of a single case of such recovery.

47. Under the new law a single assessment is made of the plot of land belonging to each landlord. To this is attached a schedule of all the huts on the land and of the valuation of each, that both landlord and tenant may know the precise sum recoverable by the former. From these valuations a deduction of 10 per cent. is allowed for repairs, and the landlord is allowed 2 annas in the rupee for collection expenses and other losses. The assessment now made holds good for the year, the landlord getting the benefit of new huts and having to pay the rates of any that are removed. At the end of the year either he or the Municipality may insist on a revaluation, but if neither do so, the old valuation may continue from year to year. A single bill is made out against the ground landlord for each quarter.

48. The main object of this provision is administrative efficiency and the putting a restraint on the ill-treatment of a class little capable of defending themselves, and it is on this ground that I would most earnestly deprecate any reversion to the old system. At the same time I am quite prepared to defend it on the ground of

equity also. It is well known that it has been introduced into England for the very same reason, where it has been the law since 1869. All rates in England, with very rare exceptions, are payable by the occupiers; but by 32 and 33 Vic., Cap. 41, it was prescribed that whenever a holding was valued at less than £20 in the Metropolis, £13 in Liverpool, £10 in Birmingham or Manchester, or £8 in any other parish, the parish authorities might rate the owners instead of the occupiers, giving them an allowance of 15 per cent. The object of this is precisely the same as that of the present Act, viz. to keep the collecting establishments of the Municipality away from the very poor and defenceless. If needed in England, it is needed ten times more in Calcutta, where this is the class habitually most oppressed and most silent under oppression. Under the old law the number of warrants issued in Calcutta annually was between 30,000 and 40,000, the great bulk of course in connection with these poorer rate-payers,—100 warrants a day, yet who heard anything of them! Under the new system a single warrant has been issued against a wealthy ground landlord, who, with ample means, was openly defying the law, and the whole of Calcutta rings with the event, and a suit in the High Court is the result. Is any comment necessary on such a contrast?

49. It may be said, however, that as the hut-owners will have to deal with the landlords' agents, they will be worse off than if they had to deal with the municipal underlings, but this is an untenable objection. The hut-owners must, under any circumstances, be brought into contact with the ground landlord's collecting sircar. If he is unprincipled he can worry the tenants in the collection of rent quite as much as in the collection of rates. Moreover, if the new law is retained, it may be anticipated with confidence that in a very short time the rates will be included in the rent. The landlord will say, "I will pay your rates; you pay me Re. 1-12 instead of Re. 1-8 a cottah ground-rent," as they frequently already do in the matter of tenanted houses. When this is brought about, the object of the new legislation will be fully attained. I have no doubt that if the Government will only support this provision of the new Act, the benefits resulting from it, in a few years, will be most conspicuous. As a very experienced officer of the Corporation said to me the other day, you may almost close the Warrant Department.

50. But it is urged that the provision is essentially unjust to the ground landlord, and therefore, however beneficial the results may be, justice ought not to be sacrificed to them. And the distinction pointed out by Sir Charles Paul is approvingly quoted, that in England the owner is made liable for his own property, but in Calcutta he is made liable for the rates of the huts of which he is not the owner. I have the greatest possible respect for Sir Charles Paul's opinion, and he rendered most valuable assistance in carrying through the assessment clauses of the new Act; but in this instance I must be allowed to adhere to my own judgment. The bustee owner is the sole and only proprietor of the holding. He has surrendered nothing of his proprietary rights—not even a six-months' tenancy. To call the hut-owner, who can be expelled at a moment's notice, an owner, is surely a euphemism. He owns nothing but the bamboos and tiles of his hut. The ground landlord invests no capital in the bustee (except perhaps for drainage), he risks nothing, he ventures nothing, and he appropriates all the profits of the municipal improvements. The value of bustee land since the bustees have been improved by the Corporation, have had roads made through them, bathing-platforms erected in them, and their conservancy attended to, has gone up from 50 to 300 per cent. At a most moderate computation the ground rents of bustees in Calcutta have increased by five lakhs annually during the last six or seven years. The landlords have literally grown rich in their sleep. And can they, forsooth, complain of injustice at the hands of the Corporation, because for the well-being of the community they are required, as in England, to advance the rates for poor tenants?

51. So long it was the hut owner who was over-assessed by being allowed no abatement for repairs, who was required to pay 10 per cent. *ad valorem* as house-service fees, was given no drainage, no lighting, no conservancy, was allowed no water connections, and, in the suburbs, was required to pay his landlord's rates as well as his own, not a voice was raised in his behalf; it was left entirely to the official Chairman to draw attention to his wrongs! But now that by a righteous

change in the law the duties and responsibilities of the one class who benefit most by municipal expenditure—the ground landlords—are recognised, and they are warned that they must bear in future something approaching a fair share of municipal burdens, the whole of Calcutta is in arms to resent the outrage! Ward meetings are held, a public meeting is convened in the Town Hall, the services of the ablest lawyers in Calcutta are enlisted, and the “iniquity” of making the gentry of Calcutta pay a somewhat fairer share of the rates than hitherto, is the theme of the daily and weekly press. To me I must confess that, as I became more and more fully alive to the inequalities and inequities of the old system, and also more aware of the powerful band of interests welded together to uphold and defend these abuses, the work of removing them, in spite of the storm of opposition which the effort was certain to arouse, assumed the aspect of a sacred duty.

52. I do not for a moment doubt that there are many very poor house-owners in Calcutta, who have difficulty already in making two ends meet, to whom any increase in the valuation of their house, involving a proportionate increase in their rates, is a very serious evil. This is the difficulty with which we are confronted everywhere in Bengal, where the class that lives on the land has increased so much in number that the most legitimate taxation of rent is in practice often found extremely burdensome. But this, however much it may induce sympathy with the poorer house-owners, occupying their own houses, cannot obviously avail in a question which must turn on justice between class and class. Reduced to its last analysis, this plea amounts to nothing more than that because they are poor, others must pay for the water, lighting and other municipal benefits which they enjoy. Poverty may be an excellent reason for appealing to the charity of their friends and relatives, but none for extracting forced benevolences from other ratepayers, many of whom are poorer than they are.

53. I have, I think, shown clearly that, tried by any fair test, those who reside in their own houses in Calcutta will still be rather under than over assessed, that the ground landlords, to which class they of course belong, are the class that benefits most by municipal improvements and municipal expenditure; that, as shown in the appended note, the trading and commercial community, because it works in the most valuable part of the town, pays more than double for all it receives, and the surplus goes to provide the wants of the class that is now complaining of unfair treatment. I do not think any case has been made out for interfering with the operation of the Act, though I am far from certain that a case could not be made out for providing some much more efficacious remedy to the abuses which it but very partially removes.

H. L. HARRISON

The 26th May 1890.

APPENDIX A.

On the rating of mansions in England.

1. The memorialists refer approvingly to the remarks of Sir Richard Garth, C. J., that “similar difficulties arise in England in the case of gentlemen’s parks and mansions which are laid out for residential purposes and not for sale or letting. But such properties are nevertheless constantly rated upon the basis of their annual letting value.” And although this is only lightly touched upon in the memorial itself, the remarks have been freely referred to in speeches and articles, as if Sir Richard Garth was in some way condemning by anticipation the provisions of the present Act. The remarks of Sir Richard Garth were made in a case which came before the High Court under the former and not under the new Act. The Assessor had, as the High Court considered, valued a new house on a percentage of its actual cost: the simple question before the Court was whether, under the law as it stood, such valuation was legal: and Sir Richard Garth meets the argument that there was no way out of the difficulty, as the house was not built for letting purposes, by pointing out that similar difficulties have occurred in England in the case of mansions, but they have been somehow or other overcome under the law as it stood. There is not here one word of commendation for the law as it stood. The Chief Justice

Remarks of High Court in former case are not relevant, as the law was different.

expressed no opinion that the English system had resulted in equity or had given satisfaction. Had he done so, he would have been at variance with every single authority I have come across on the subject; but all he says is that the legal difficulty has not proved insurmountable in England. Obviously, therefore, his remarks in this case have no bearing whatsoever on the present issue.

2. Still it is a fact that *prima facie* the rating of mansions was till lately the one exception to the rule of either cost price or market value having been looked to in England as the best guide to the rent which a hypothetical

Still rating of mansions was till lately the one blot in the English system.

tenant should pay for the use of buildings not constructed for letting purposes. In the case of manufactories, hospitals, school-houses, reservoirs, light-houses, &c., there are decisions showing that the hypothetical tenant must be assumed to pay such a rental as yields a fair return on the value of the building, land included, but in the case of mansions the argument has been used, as Mill says, that as no tenant could afford to pay more than a mere song for the use and occupation of such mansions, therefore they ought to be rated at a song; and Adam Smith says—

“Houses inhabited by the proprietors ought to be rated, not according to the expense which they might have cost in building, but according to the rent which an equitable arbitration might judge them likely to bring if leased to a tenant. If rated according to the expense they may have cost in building, a tax of 3 or 4 shillings in the pound, joined with other taxes, would ruin almost all the rich and great families of this and I believe every other civilized country. Whoever will examine with attention the different town and country houses of some of the richest and greatest families in this country, will find that, at the rate of only 6½ or 7 per cent. upon the original expense of building, their house rent is nearly equal to the net rate of their estates. It is the accumulated expense of several successive generations laid out upon objects of great beauty and magnificence indeed, but in proportion to what they cost of very small exchangeable value.”

3. It is well known that this passage of Adam Smith is not concurred in by modern English economists. Mill, in the passage quoted so often in this connection, differs *in toto*, while Thorold Rogers, whose edition of Adam Smith (2nd edition, 1880,) I have before me, says in noting on this passage: “There is no apology for running into the opposite extreme and rating the value of such houses at nominal sums. The Legislature might concede a little to the vanity of *potentates in country-places*, but the public undoubtedly feels that it is a scandal when places like Chatsworth* and Belvoir are rented at such sums as £200 a year, because, forsooth, they could not be let at a higher annual sum.”

4. But even taking the passage in Adam Smith as it stands, it is evident that he is contemplating a very different class of houses from the residential houses in Calcutta, most of which are under the new law valued at from Rs. 10 to Rs. 150 a month and every square foot of which is carefully built with a view to the convenience of the house as a residence. The largest landholder in Calcutta will hardly have his house valued at above Rs. 1,000 a month. Is Rs. 1,000 a month the whole net rent of the estates of these gentlemen? Would they be ruined by paying four shillings in the pound (i.e. 200 a month) to the Corporation as rates? If anybody is seriously hurt by these enhancements, it is small house-owners whose rental is valued at Rs. 10 to Rs. 50 per mensem, and whose houses in England would be strictly rated by comparison with other houses let out to tenants. Where in Calcutta have we the accumulated expense of several generations upon objects of great beauty and magnificence? What we want to rate at a fair value in Calcutta are not picture galleries and unique statuary or superb libraries, but mere bricks and mortar, ordinary dwelling rooms, stables and servants' houses. Surely there is no room for doubt that such houses as these in English towns are now rated at their full value.

5. What really correspond in Calcutta to the English mansions are the large public buildings, the Museums, the Tea Warehouse, Writers' Buildings, the Currency Office, the High Court, and above all Government House and Belvedere, but these buildings already bear an annual value of 5 to 6 per cent. on the outlay. It is quite true that these large buildings cannot receive anything like an equivalent in municipal benefits for the rates they pay, whether by way of water, lighting, or conservancy; whereas the residential houses regarding which the complaint is made swarm with inmates, and appropriate a very good share indeed of municipal conveniences.

The real mansions of Calcutta have been fully rated.

* Chatsworth is now rated on £1,500 a year, which is still complained of as too low.

6. However, let me follow up the more recent history of rating mansion houses in England. The manual which I take as my authority is a well-known manual on the law of parochial assessment, by W. Golden Lumley, Q.C., 7th edition, edited in 1882 by W. Cunningham Glen, Barrister-at-law. The following passage gives Lumley's remarks on the rating of mansions. As the word mansion is not defined, the sense in which it is used must be gathered from the context and the arguments. Though it does not exclude mansions in towns, it is evident that the arguments chiefly apply to large country houses, adjuncts of large estates:—

"In the case of large mansions or castles, such as Chatsworth or Alnwick castles, when in the occupation of the owners, a tenancy from year to year is too short a period of letting to be assumed, for it is clear a tenant would not give so much on such a tenancy as if he got the castle or mansion on a seven years' lease, and as Cockburn, C.J., in *Clive versus Foy*, said, 'if you rated it on that principle you would rate it much below its value, which ought not to be done.' (Hedley on rating mansion houses, page 28.) But as property of this description is not built to let to ordinary tenants, and is not capable of yielding direct annual profit or rent, instead of assessing a tenancy, the usual course is to assess the amount which the property would fetch in the market, and upon that to calculate the gross annual value at 3 per cent. upon the capital sum" (page 19).

7. It will be seen that the authority referred to is Hedley on the rating of mansions. Mr. T. F. Hedley is a valuer and arbitrator of Sunderland, who wrote at least two pamphlets, one in 1866 and the other in 1874, on this subject, the latter of which is styled "Observations on the rating of Mansion Houses." I cannot do better than give a summary of this pamphlet to show how an experienced English surveyor deals with a question of this kind. The pamphlet opens thus—

"The question of the assessment of the large mansion houses and pleasure grounds occupied by the nobility and gentry of this country, for the purpose of local taxation, has frequently been brought under the notice of the public, and within the last few years two attempts have been made to legislate upon the subject, to remedy the existing inequality, unfairness and injustice in the rating of these large houses, and which the late President of the Local Government Board very properly described as a 'sort of scandal.'"

"The Right Hon'ble G. J. Goschen proposed, in the Bill he introduced in the session of 1871, that 'where any building, by reason of its size and structure, or of its being adapted for some special purpose, cannot be properly valued according to the annual rent which a tenant might reasonably be expected to pay for the same, it may be valued by the Chairman of the Parochial Board, as follows:—

"The gross value of any such building shall be a sum equal to 4 per cent. on such capital sum as a purchaser might reasonably be expected to give for such building in its actual state and existing mode of occupation."

"And the Right Hon'ble J. Stansfield proposed in the Bill he introduced in the session of 1878, that 'where the overseers, or other valuing authority, are of opinion that any building in any parish, either in the metropolis or elsewhere, which is not occupied by a tenant or tenants *bonâ fide* paying or liable to pay rent for the same, and is not occupied for the purposes of trade or profit, cannot by reason of its size, character, use, or any exceptional circumstances, be properly valued according to the annual rent which a tenant might reasonably be expected to pay for the same, the overseers or other valuing authority may value the same under the provisions of this section.'

"The gross value of any hereditaments valued under the provisions of this section may be estimated according to the annual value thereof to the person occupying the same in respect of its actual use and occupation."

"Although mansion houses were not expressly mentioned in either of the Bills, it was understood that both the proposed clauses were specially intended to apply to the assessment of large mansion houses; but as neither of these Bills passed into law, the assessment of the large mansion houses must be made in conformity with the general statute and expounded laws in force for the assessment of property for the purpose of local taxation."

8. The pamphlet then proceeds to set forth the existing law, both the original statute of Elizabeth 43, Cap. 2, directing poor rates to be levied *in regard to the possessions* of the occupiers, and the Parochial Assessment Act already quoted (6 and 7 William IV, Cap. 96), which, as it points out—

"Introduced no new principle of rating, but only a new mode; therefore the Act of Elizabeth is the principal Act in force under which all rateable property is now by law assessed to the rates for the relief of the poor and other local rates; and although since the passing of the statute of Elizabeth many large works, such as canals, docks, gas and water-works, railways and telegraphs, have been constructed, which were never contemplated when the statute of Elizabeth was passed, no special legislation has been required to assess these properties, as the Judges of the Superior Courts have been able to apply the statute of Elizabeth

and to lay down clear and intelligible principles, under the Parochial Assessment Act, for assessment of these large works, *though such works could not let from year to year*; and there can be no doubt that if a case had been stated for the opinion of the Court of Queen's Bench on the rating of mansion houses, the Judges would have laid down some principle by which those large houses could have been fairly assessed. And it is remarkable that up to the present time the 'difficult' question of rating mansion houses has never been submitted for the consideration of the Superior Courts, and that all the proceedings connected with this subject should have hitherto been limited to the petty or quarter sessions, and treated as a question of fact only."

He then refers to the case of Lord Normanton's house, insured for £60,000, having cost above £100,000, and recently valued by the Hampshire Quarter Sessions at £286 per annum, and remarks:

"Taking into consideration the fact that agricultural land is assessed upon an annual value of 3 per cent. per annum, and ordinary houses and other property at from 5 to 6 per cent. upon their respective capital values, the assessment of this house at less than $\frac{1}{2}$ per cent. of its insured capital value is manifestly unfair, unequal and unjust."

9. I invite particular attention to two points in this extract: firstly, that the only reason why the rating of mansion houses in England has been so unsatisfactory is because the question had never up to 1874 come before the Superior Courts. All similar cases which had come before those Courts (manufactories, hospitals, &c.,) had been disposed of in a manner closely analogous to that adopted by the new Act. Secondly, it is only land in England that is assessed at 3 per cent.; buildings are usually valued at 5 to 6 per cent. on their capital values, and it is because they are adjuncts to land that 3 per cent. has been taken as the rate for mansion houses, as will be shown further on. After instancing some further cases of gross abuses, Mr. Hedley remarks: "In my opinion the occupiers and owners of large mansion houses do not wish to evade their fair share of local taxes, but they labour under what I believe to be a mistake, and that is that the rents at which these houses would let from year to year to an ordinary or actual tenant is the sole criterion of value, or of the amount from which by the statute the rateable value is to be arrived at."

10. Mr. Hedley then goes on to point out that the rent at which an hereditament might *reasonably be expected to let* is a very different thing from the rent which it might actually be able to command owing to want of any proper demand. Over and over again the Courts have ruled that, when an owner occupies a building himself, the demand exists in his own person, and the question of a reasonable rent must depend on the conditions and circumstances of the property.

"The Superior Courts have decided 'that rent is not the sole criterion of value, nor can rent be taken as the one fact exclusive and conclusive of the amount from which by the statute the rateable value is to be arrived at' (Rex v. Dorking, 18 Jur. 673), and 'the rent that would be paid, *not by an actual tenant*, but by the hypothetical tenant, must decide the value' (Rex v. Llantrissant, 33. S. P., 242 and 613).

He then proceeds to quote decisions of the Superior Courts in the case of manufactories, light-houses, railway stations, reservoirs, hospitals, work-houses, all of which, like mansions, have not been—

"Built to let, and are incapable of yielding direct profit, as they could not be let from year to year to ordinary tenants."

And he states his opinion—

"That large mansion houses connected with estates are now legally rateable, and ought to be rated on the principles laid down above for rating other property which is not let from year to year to ordinary tenants, and where in practice actual tenants are rarely if ever known, and the owners and occupiers of mansion houses ought to be assessed upon the *rents of the lands occupied by their mansion houses, pleasure grounds and gardens connected therewith, and adequate remuneration or fair interest on the capital invested in such mansion houses which would represent the yearly rent which the occupiers might reasonably be expected to pay if they had not been the owners of the mansion houses.*"

11. Mr. Hedley then exemplifies this principle in its application, and a long quotation is necessary not only to explain it, but also to show why he arrives at the rate of 3 per cent. on the capital value which, according to Lumley, has since become the accepted rule:—

"In valuing mansions on this principle, there is no difficulty in arriving at the rent of the land occupied by the houses and pleasure grounds, as that will depend upon the quality and situation of the land.

"The amount of 'fixed capital invested' in mansion houses, or the 'expense of the buildings' is a more difficult question to settle, as the cost of the buildings, or what has been

expended, may be no criterion of present value; for 'that which was costly may have become valueless by reason of subsequent changes, or the money may have been injudiciously expended. As for instance, in old feudal castles, much that was costly in 'erecting works of defence is now valueless' by reason of 'subsequent changes' in the times and in the manners and customs of the people, and in other cases large sums have been expended from unforeseen difficulties in foundations, or on ornamental or decorated buildings or 'follies' which may not have added either to the value of the houses or the estates. In such cases the cost or money expended will not represent the present value or the amount of the capital invested in the mansion house for the purpose of assessment.

"As the value of the thing rated must be the value at the time the rate is made, therefore the value of the mansion houses or the capital invested therein must be limited to the increased value which the mansion houses might reasonably be expected to give to the estates, or to the capital which it might reasonably be expected the owner of an estate would have to invest in erecting a suitable residence, and not the amount actually expended.

"The next question is the adequate remuneration, or fair interest, on the capital invested in mansion houses as the local rateable values; taking into consideration *that mansion houses are treated as adjuncts to estates, and that such estates do not yield more direct profit or rent on the capital invested than 3 per cent. per annum.* I think the local rateable value of the mansion houses ought not to be estimated at a greater rate than three per cent. per annum on the present capital value of mansion houses as adjuncts to estates.

"The rents of the lands and the interest on the capital invested in mansion houses will be the annual or 'local rateable values;' and the hypothetical tenants must be assumed to repair and insure the mansion houses."

12. I have thus shown how it is that 3 per cent. on the capital value was

Nothing less than an average rate of 5 per cent. could be fair in Calcutta.

advocated by Mr. Hedley, and has to a great extent been subsequently adopted in England as the fair percentage to determine the annual value of mansion houses. It is because these houses are adjuncts to country estates, the yield of which is not ordinarily more than 3 per cent. Three per cent. in England is very nearly equal to 5 per cent. in India, looking to the higher return for money in this country. But be this as it may, the argument fails to apply to houses in towns, the main object of rating which is not the payment of poor rates, but the defraying of the expenditure necessary for drainage, water-works, roads, lighting and conservancy. Even in England, as the foregoing extracts show, 5, 6, 6½ and 7 per cent. are the usual returns to allow on capital sunk in building, and the rate of 5 per cent. which the Act adopts is undoubtedly very low, so low and so favourable that, if it has to be altered at all, justice will require it to be considerably raised as regards the cost of building, though it may equitably be lowered as regards the annual value of the land.

13. The passage last quoted also indicates plainly the use as well as the abuse of taking the present estimated cost of rebuilding as the standard of value. If the Taj or the Moti Masjid, if architectural gems or owner's "follies" had to be assessed in Calcutta, it would be very unfair to take the present cost of rebuilding them, less depreciation, as the standard of value. But when a building is built in modern style, when there is no waste on costly defences adapted to a bygone age, when every room, every dalan, every courtyard, every verandah, every puja bari, is made full use of by the existing family, and probably some additional rooms have to be from time to time provided as the family increases, then the estimated present cost of rebuilding is *ex necessitate rei* the truest test possible of the occupation value of the building, and in such cases a percentage on the amount is the best possible standard for determining the rent which the hypothetical tenant should reasonably be expected to pay.

14. Moreover, the foregoing account clearly shows that the difficulty in the case of mansion houses was altogether different in kind from that of residential houses in Calcutta. These latter are depreciated where they are let, not because the cost of keeping them up is so great that tenants cannot afford to hire them, but because there is a strong sentiment or prejudice against living with a family in a hired house, even a tiled hut on land belonging to the occupants being considered preferable. Hence while such houses are in the *greatest possible demand*, so much so that they are being constructed every day, and that it is contended that this demand has abnormally raised the value of land adapted for their construction, such demand is entirely for occupation by their owners, not for occupation by lessees. I cannot believe that any Superior Court in England would for a moment have listened patiently to such a plea as is above indicated for the assessment at a nominal sum of a commodious, convenient, and not oversized family residence in a municipal borough.

H. L. H.

APPENDIX B.

On the equitable incidence of Municipal Taxation in Calcutta.

1. In annexing this note to my reply to the memorial, I will at the outset repeat that Act II of 1889 aimed at nothing more than a nearer approach to equality of rating, that is, equal rates according to the true and fair value of the property rated. The time has not yet come for the exceptional taxation of ground rents or of any other particular class of property, but many persons are heard from time to time to apologise for the inequality of rating that has hitherto prevailed in Calcutta, on the plea either that the favoured class ought on general principles of equity to be favoured, or that they get so small a share of municipal benefits, that it is after all substantial justice if they pay something less than others.

Both of these pleas are conspicuously unfounded, and it is surely therefore of importance to show, as I do in this note, (1) that the favoured class, far from being equitably entitled to favour, ought, on the contrary, if there is differential taxation, to pay the most; (2) that so far from getting less than their share of municipal benefits, the gravamen of the case against them is that, while they pay much less, they receive much more.

2. (1) By principles of obvious justice, no less than by the universal consent of all competent authorities, ground rents in large cities are above all other classes of property, legitimately taxable for the maintenance and improvement of the city. Adam Smith, after approving the taxation of building rents, says:—

Ground landlords in a growing city are the last class that ought to be exceptionally favoured.

"Ground rents are a still more proper subject of taxation than the rent of houses Both ground rents and the ordinary rent of lands are a species of revenue which the owner in many cases enjoys without any care or attention of his own. Ground rents seem in this respect a more proper subject of peculiar taxation than even the ordinary rent of land . . . Ground rents, so far as they exceed the ordinary rent of land, are altogether owing to the good government of the Sovereign which, by protecting the industry either of the whole people or of the inhabitants of some particular place, enables them to pay so much more than its real value for the ground they build their houses upon, or to make to its owner so much more than compensation for the loss he might sustain by the use of it. Nothing can be more reasonable than that a fund which owes its existence to the good government of the State should be taxed peculiarly, or should contribute something more than the greater part of other funds to the support of Government." (Wealth of Nations, Book V, Chapter II.)

And Mill says:—

"Among the very few kinds of income which are fit subjects for peculiar taxation, these ground rents hold the principal place, being the most gigantic example extent of enormous accessions of riches acquired rapidly, and in many cases unexpectedly, by a few families from the mere accident of their possessing certain tracts of land, without their having themselves aided in the acquisition by the smallest exertion, outlay, or risk." (Principles of Political Economy, Book V, Chapter III, section 6.)

3. In Calcutta a bigha of land yields an annual rental of from Rs. 200 to Rs. 2,000; agricultural land in the 24-Pergunnahs from Re. 1 to Rs. 10. The location of Calcutta on its present site has thus increased the rental of the ground landlords by about two-hundredfold without any effort or contribution on their part. Had an intelligent autocrat, foreseeing this in the outset, said to the ground landlords—"I am about to work for the location of a large flourishing commercial city on the site of your property. This city will raise enormously the value of the ground on which it is built, but it will require a very large outlay for its drainage, conservancy, &c. I want to divert these enhanced receipts to this object; this is no injustice to you; part with your lands if you like for full value and something more, if not take 10 per cent. (say) of the profits in addition to the present rental in recognition of your landlord's interest, and I will be satisfied with 90 per cent. for the wants of the city."

4. Had this, I say, happened, and had the owners accepted the offer, what should we now see? An annual income from ground rents alone of at least 45 lakhs for the municipal expenditure of the town of Calcutta, a sum sufficient to meet all its wants without laying on a single rupee of taxation; and simultaneously a body of landlords enjoying a rental of 5 lakhs per annum instead of the Rs. 25,000 they were previously receiving, who would be loud in their laudations of the wisdom of the benevolent despot, who had thus multiplied their rents twentyfold, and loud in their own praise for having accepted his offer instead of selling

their lands to him outright. What we do see is that, though they are enjoying receipts two-hundredfold, instead of twentyfold their former amount, they are at the same time complaining bitterly of having to pay a fair share of the general taxation to the city!

5. Of course now that new expectations have grown up, that land has in most cases changed hands for full value, and that complicated interests have arisen, such a utopian settlement of the wants of the capital of India is no longer consistent with justice. But still it is evident that the income which, above all others, has been created and is maintained by the creation and maintenance of Calcutta has a commercial capital, is the ground rent, and therefore the ground rent is the most legitimate object of taxation that can be conceived for the maintenance of the city. This is still more the case when it is remembered that never has the increase in the value of ground rents of Calcutta been more marked than in the last 10 years, and that it is specially traceable in this instance to the municipal improvements. Of the two-hundredfold increase which has taken place in the ground rents of Calcutta during the last two centuries or so, one-half or one-hundredfold has taken place during the last 10 years.* At the lowest possible computation the *annual* value of the land of Calcutta has increased by 25 lakhs during that period, not improbably by 50 lakhs, for in making an estimate based on an average of rents varying so much as the rents on the Strand Bank do from those of land on Circular Road, a considerable margin must be allowed. This means that in these ten years five to ten crores of rupees have been added to the capitalized value of the property of the landowners of only six square miles! Is it, I ask, reasonable, to use no stronger expression, that a class of rate-payers which have had such a boon conferred on them, should so vehemently oppose an endeavour to make them pay an equal share of the taxation of the town with their fellow rate-payers?

6. Now it is obvious that it is the class that is most coincident with the ground landlords of Calcutta, which has specially benefited by the under-valuation of family residences. The ground landlords of Calcutta are nearly to a man owners and occupiers of the houses they live in, and therefore profit directly by the under-valuation of their own residences, for which they pay both as owner and occupier, as compared with the over-valuation of all other house property by no allowance having been made for repairs, for which they pay only half while the occupiers pay the other half. Again, they benefited specially by the bustee system, under which they paid the owner's rates only for the lands which, as already explained, were relatively under-valued, while the owner of the bamboos and tiles paid far more than his share of taxes without any deduction. Again, they have benefited very materially by the under-valuation as a system of all residential houses, because they are the vendors of the lands on which those houses are being built; and if those houses are favoured, it is evident that a much higher price can be obtained for the land from candidate residents. This is exactly what we see before our eyes. Every one is surprised to find that land suitable for building sells outright for much more than any proper multiple of the rent which it will command. Is it not evident that the extreme desire of others to become owners of any portion of the soil of Calcutta, rising as it is in value by leaps and bounds, as well as to have the advantages of a permanent house in Calcutta, enhanced by the prospect of having that house under-assessed as compared with other house property by 50 per cent., is a most important factor in the demand for building sites? If a house built on 10 cottahs of ground would formerly be valued at Rs. 250 per annum, but under the new system will be valued at Rs. 500, and if municipal aggregate rates are paid at 20 per cent., this means that the owner-occupier of the house under the new system will pay Rs. 100 a year as rates, when before he paid only Rs. 50. Rupees 50 a year capitalized is Rs. 1,000, or Rs. 100 divided over each of the 10 cottahs. Hence taking those figures as a fair standard, Rs. 100 out of the price of every cottah of land sold under such circumstances for building purposes during the last few years, has gone into the pockets of the ground landlords owing to the system of under-valuation, when under a proper valuation

* It was asserted by Mr. Osmond of Mackintosh, Burn and Company, in the municipal meeting in the Town Hall on the 24th April last, that to his own knowledge land in Calcutta had on the average quadrupled in value in the last 15 years, a result which could only be attributed to the Sanitary improvement of the town, especially water drainage and conservancy. No one present demurred to this statement.

it would have gone by instalments of Rs. 5 per annum per cottah into the coffers of the Municipality. Classes instinctively perceive their own interests far more rapidly even than they do so as a definite logical deduction, and it need therefore cause no surprise that the ground landlords form the backbone of the opposition to the new assessment clause.

7. On the other hand there is an impression in some quarters, notably fostered by the *Statesman* newspaper, that the trade and commerce of Calcutta is the proper object of the taxation necessary to maintain the city, as being that which causes the influx of population

While trade and commerce ought to be carefully shielded from paying anything more than is necessary to cover what is done for them.

and makes such use of the city and its conveniences. No economical heresy could be more unsound, no fiscal principle more inequitable. To the capital which is invested in the trade and commerce of Calcutta, it is a matter of comparatively small importance whether the seat of that trade is Calcutta, Canning, Serajrunge, Chittagong or any other place. It is a matter of enormous importance to the ground landlords of Calcutta, but of very little consequence to its commercial capitalists, that the emporium of that trade should be on the banks of the Hooghly. Those who have sunk money in expensive buildings would of course lose somewhat by the difficulty of disposing of those buildings, but as a general rule capital invested in commerce loses but little by increase of business in one place and corresponding decrease in another.

8. On the other hand, any special rates or taxes on trade are open to the gravest objections, and tend manifestly to drive it away from the place which taxes it. On this subject the late Mr. Fawcett writes:—

"We have next to enquire what would take place when rates are higher in some localities than in others. Those who carry on business in localities where rates are exceptionally high would be unable to shift the burden of the extra rates upon the consumer, because the competition of those localities, where rates are comparatively low, would prevent the price of the commodity being raised sufficiently to compensate those traders upon whom the exceptionally high rates are imposed. It is therefore evident that the trade of a district may be seriously imperilled, if it has to bear rates much in excess of those which are levied in other localities. A merchant or manufacturer may be unable to continue his business, or may be induced to withdraw his capital to other localities, if he has to bear the burden cast upon him by excessive rates."

9. Is not every word of this applicable to the commerce and trade of Calcutta at the present time? Are not the tradesmen of Calcutta threatened with competition in every direction in and out of India, by rivals who pay much less by way of rates and taxes than what is paid in Calcutta? And is it not of the utmost importance to the well-being of the commerce of Calcutta, if it is to hold its own against Bombay and other ports, that it should be freed from all unnecessary burdens? Yet we first levy 2½ lakhs of direct taxation on it by way of trade and profession licenses, and then make it pay two or three times more by way of rates, than the benefits it receives, because the land on which it has to work is so highly rented!

10. In one respect only is trade at an advantage in Calcutta—that portion of it which uses heavy machinery escapes rating for it, though in England all machinery which is permanently attached to a building is rateable; but this, though it is an advantage which ought not to escape notice, is a very small set off against the excess paid in all other directions, as I shall presently show.

11. What then Calcutta has done in the past, and even must under a system of equal rates continue to do in the future, though I hope a little less scandalously than heretofore, has been to sacrifice the interests of the trading and commercial community, both European and native, to that of the ground landlords: in a word, of the productive to the non-productive classes; of those who live and (if they grow rich) grow rich by their own exertions, to those who grow rich in their sleep without any effort of their own.

12. On the other hand, it is not my object (as some of the native papers, wishing to divert this into a race question, instead of its true bearing a class question, represent) to contend that the European residents as such, and as distinct from many of the same individuals in their capacity of merchants and traders, have been over-taxed. Their houses, it is true, have been over-assessed, as already pointed out, by about 15 per cent. owing to

no allowance having been made for repairs; but on the other hand they live in parts of the city where land is not expensive, and where municipal money is freely expended for their comfort and convenience. The figures below will show that, while the greater portion of the excess rates and taxes paid by the riparian wards has been spent for the benefit of the northern residential wards, some portion of it has also gone to the benefit of the European residential wards, especially Hastings, which, being small and isolated, is a very costly ward compared with its municipal income.

13. Large Government buildings and the Port Commissioners' properties do, however, undoubtedly pay far more than they receive. They are mostly situated in that part of the town in which land is most valuable, and in matters of lighting and conservancy, but above all in regard to water, receive very much less than they pay for. It is probably a moderate calculation that these large buildings pay for ten times the amount of water which they consume, the other nine-tenths being a contribution to the water-supply of other parts of the town.

14. (2). Having said thus much regarding the classes who might in equity be expected to pay more, and those who ought under no circumstances to pay more than their proper tale of municipal rates, let me now go into the important question of municipal benefits.

15. A very erroneous notion has prevailed in some quarters that the bulk of municipal expenditure is incurred for the benefit of the south of the town, and that the residential wards in the north, if they pay little, at any rate receive little. This is an entire mistake. The Chowringhee quarter has no doubt nothing to complain of, while Hastings, a small isolated place, undoubtedly costs much more than it pays; but the northern residential wards are also very well treated, and the parts of the town which receive much less than they pay for are unmistakeably the riparian wards—No. 12, Waterloo Street; No. 7, Burra Bazar; and No. 5, Jorabagan. This I now proceed to show.

16. The following table gives the assessment of each ward in 1888, when the Act was passed; the area in acres and average assessment per acre; the population at the last census, and average assessment per head of population; also the proportion which the assessment of each ward bears to the assessment of the whole town:—

Number and name of ward.	Assessment in round numbers in 1888.	Acreage.	Population at last census.	Average assessment per acre.	Average assessment per head of population.	Percentage of assessment to assessment of whole town.
	Rs.			Rs.	Rs.	
1. Shampooker ...	4,40,000	327	25,487	1,345	17	31
2. Coomartooly ...	7,68,000	199	25,682	3,855	30	53
3. Burtollah ...	4,60,000	299	25,527	1,536	18	33
4. Sookca Street ...	3,48,000	232	20,572	1,500	17	25
5. Jorabagan ...	14,24,000	245	36,318	5,812	39	99
6. Jorasanko ...	7,15,000	251	32,824	2,848	22	49
7. Burra Bazar ...	23,84,000	207	21,789	11,500	109	166
8. Colootollah ...	9,60,000	227	47,323	4,229	20	67
9. Mocheepara ...	5,88,000	266	39,241	2,212	20	41
10. Bow Bazar ...	6,40,000	144	21,627	4,444	29	44
11. Puddopookur ...	4,70,000	165	20,516	2,848	23	33
12. Waterloo Street ...	23,84,000	205	5,786	11,600	411	166
13. Fenick Bazar ...	8,16,000	190	26,051	4,294	31	56
14. Taltollah ...	4,59,000	208	26,062	2,206	18	33
15. Colingah ...	4,52,000	170	11,840	2,658	33	32
16. Park Street ...	6,39,000	192	4,908	3,328	130	44
17. Theatre road ...	2,98,000	170	6,125	1,811	48	21
18. Hastings ...	94,000	57	4,953	1,649	19	7

17. A little consideration will show that this tabular statement is by itself decisive of the question of municipal expenditure. Substantially, municipal outlay must more or less vary as area or population. Area practically settles the cost of road maintenance, drainage and lighting, population *ceteris paribus*, the consumption of water, conservancy, and the cost of police. There may be small fluctuations due to local causes, but on the whole if one ward pay much less, both per acre and per head of population, than another, it is practically certain that qua municipal expenditure it is living on the other, and that the other is paying part of its rates for it.

18. Compare, then, the three riparian wards with the residential wards.

Wards	Riparian Wards.	Assessment per acre.	Assessment per head of population.
		Rs.	Rs.
12, Waterloo Street	...	11,600	411
7, Burra Bazar	...	11,500	109
5, Jorabagan	...	5,812	39

Wards largely occupied by owners living in their own houses.

The three wards that are expressly agitating.	1, Shampookur	...	1,345	17
	6, Jorasanko	...	2,848	22
	9, Mocheepara	...	2,212	22
Not yet reached by new Act.	3, Burtollah	...	1,536	18
	4, Sookea Street	...	1,500	17

19. On the other hand Hastings, with an assessment of Rs. 1,49 per acre and Rs. 19 per head, is an obvious gainer to the same extent as one of the northern residential wards. Theatre Road is very lightly assessed per acre (Rs. 1,811), but fairly heavy (Rs. 48) *quâ* population. Park Street is medium *quâ* acreage (Rs. 3,328), but very heavy (Rs. 130) *quâ* population. Bow Bazar, on the contrary, is heavily assessed per acreage (Rs. 4,444), but lightly per population (Rs. 29), as is Colootollah, (Rs. 4,229 and Rs. 20), the most densely populated ward in the town, containing far the largest bustees.

20. In brief, the tabular statement enables one to predicate with confidence that—

(1) Shampookur,	(9) Mocheepara,
(3) Burtollah,	(11) Paddopookur,
(4) Sookea Street,	(14) Taltollah,
(6) Jorasanko.	(18) Hastings,

are all deficit wards, living very largely on the rates and taxes paid by—

(5) Jorabagan,	(7) Burra Bazar,
12. Waterloo Street.	

While—

(2) Coomertolly,	(15) Collingah,
(8) Colootollah,	(16) Park Street,
(10) Bow Bazar,	(17) Theatre Road,
(13) Fenwick Bazar,	

are wards which are antecedently likely to be in some respects surplus, in other respects deficit wards.

However, as some persons are under the mistaken impression that the expenditure on the south of the town is so much larger than that on the north, as to neutralise in great part, if not wholly, this inequality, I have compiled with approximate accuracy the actual expenditure under several principal heads to further illustrate this important question.

21. The head under which it would be most important to get actual figures,

if possible, would be the water-supply, as that is the head of expenditure under which the riparian

wards are at the maximum disadvantage. If the disadvantage were tested by the state of things before the duplication of the water-supply and the opening of Halliday Street pumping stations, it would almost baffle comparison, for Ward No. 7, Burra Bazar, paying eight times as much water-rate per acre, and six and a half times as much per head of population as No. 1, Shampookur, scarcely got any water at all, while the former had an overabundant supply: but the Commissioners, the moment the difficulties of supplying the riparian wards were explained to them, at once sanctioned a new pumping station at a very heavy cost to remedy the evil. It would be fairer therefore to deal with the water famine in that ward as a thing of the past, and to take the supply as it now stands.

22. That being so, the only great distinction that remains unredressed, is between the population living in connected houses, who both use and waste water all day long, and the population living in unconnected houses, who have to resort to the stand-posts, and could not, if they would, take more than 8 or 10 gallons a head daily. Experiments made some years ago, when the supply of the town was only 20 gallons a head, showed that the connected population elsewhere than in the riparian wards were using over 30 gallons a head, and the unconnected, chiefly dwellers in tiled huts, 5 to 6 gallons a head.

Now that the supply is doubled, and the connected houses in the riparian wards can again get a good supply, it would probably be not far wrong to say that persons living in connected houses all over Calcutta draw 50 gallons of water per head daily, and those in unconnected houses less than 10.

23. With this exception, however, no better test can be found for the consumption of water than the population. I have ascertained that it is not possible for the Water-works Department to give any trustworthy statistics of the consumption in each ward. Consumption of water depends on 4 factors—(a) population, (b) desire to consume water, (c) opportunity (which mainly depends on the connection or non-connection of the house combined with the size of the ferrule where the house is connected, and the distance from the nearest stand-post where it is not), (d) amount of pressure. Before the opening of the Halliday Street pumping station, the pressure in the riparian wards, especially Burra Bazar and Jorabagan, was so weak that they did not consume nearly a fair share *quâ* population, but since February 1889 the pressure in every ward has been fair, though isolated places may be at a marked disadvantage, so that the difference of pressure may be ignored; the desire for water is so great every where that this factor also may be treated as a constant; we have only therefore to consider (a) population and (b) opportunity, and as the same rule for the size of ferrule is in force in all parts of the town depending on the valuation of the house (a standard very favourable proportionately to low rented houses), opportunity resolves itself mainly into the question of connection or non-connection: in other words, masonry house or hut. Consequently it is approximately fair to take the population as the test in all wards, except Colootollah, where the bustee population is disproportionately large, and which therefore consumes much less water than the population standard would give, and Waterloo Street and Park Street in which there are no bustees, but every house is connected, and which consequently may be presumed to consume more. In column (3) of the tabular statement given in paragraph 32, if 4 per cent. is taken off the cost of water in Ward No 8, and 2 per cent added to Nos. 12 and 16 respectively, the figures will be approximately correct, and certainly not unfavourable to the residential wards, where the consumption of water in connected houses is at a maximum.

24. It is probably well within the mark to say that wards 1, 3, 4, and 9, with a population of 144,000, consume two and a half times as much water as wards 5, 7, and 12, with a population of 64,000, while they paid water-rate in just the inverse proportion. Hence, taken as whole, it is no exaggeration to say that the riparian wards are still, *i.e.*, after the opening of the Halliday Street pumping station, paying six times ($2\frac{1}{2} \times 2\frac{1}{2} = 6\cdot25$) as much for the water they receive as the residential wards. But this is only half the inequality; these residential wards are mainly composed of residential houses and bustees, between the occupiers of which there is the widest possible distinction in their enjoyment of the water-supply. If the wards which the memorialists chiefly represent pay only one-sixth for their water compared with the riparian wards, the class living in their own houses in these very wards get five times as much water as the class living in bustees. Although accurate figures cannot be given, I have no manner of doubt that as an ordinary rule the under-assessed residential houses, on whose behalf the memorial has been presented, take from three to ten times as much filtered water as they pay for by the water-rate.

25. There are several other heads of expenditure, however, which admit of being allotted, ward by ward, with much more accuracy than the water-supply. First and foremost of these is the lighting expenditure. The number of lamps in each ward is known and the cost of each. The expenditure can therefore be easily distributed.

26. The expenditure in drainage can also be distributed, as the Engineer assures me that it is practically equal over each acre of Calcutta, the capacity of the drains being fixed with reference to the acreage. If the cost of the drains in each ward was taken, this would not be fair to the residential wards. As the drainage flows from west to east, the deeper and larger sewers are necessarily on the Circular Road side, but as they are deeper and larger in order to convey the drainage of the riparian wards as well as their own, it would not be fair to debit the latter only with the increased cost. Dividing the cost by acreage is substantially fair.

27. Road repairs is an item which it is very desirable to distribute, because it is a head under which the southern wards proportionately do cost something more than the northern.

Road repairs.
There is proportionately a larger area paved with stone, and it costs more to maintain these roads per 1,000 superficial feet. On the other hand, this is giving every advantage to the north, as the south also pays much more by way of carriage and horse licenses, which is a distinct set-off against the heavier expenditure. With all this, however, it will be seen that the northern residential wards receive much more even under this head than they pay for, while the riparian wards pay for them.

28. Street watering is comparatively a small item; but as it is another of those heads under which a little more expenditure is incurred in the south than north of the town it is fair to include it.

29. The staff employed for the cleansing of each ward is also easily ascertainable and the expenditure under this head is therefore shown.

30. There is no reason for omitting police expenditure, which is also easily divided, as the police thanas correspond with the wards. Not only up to 1888-89 did the town directly pay three-fourths of the police, but it also does so still in fact. The area of the old town has to contribute three lakhs annually to the improvement of the added area, as being the equivalent of the police contribution which they no longer pay. For account purposes this is the same thing as if they still paid for three-fourths of the police and the Government made an equal contribution for the suburbs.

31. The most concise and convenient form in which this information can be given seems to be by way of a tabular statement showing the percentages on the whole expenditure under each head, while the total amount of expenditure distributed is also shown at the head of the columns. This enables the precise expenditure debited to each ward to be computed.

I may add that I am taking the town as it stood before the amalgamation, i.e., showing the inequities as they stood when the Act which aimed at partially redressing them was passed. The wards 1, 3, 4 and 9 are the old wards, not the wards as added to in 1889-90. The expenditure of several years is taken when an average is needed, but of 1888-89 by preference when a single year suffices.

Municipal income and expenditure analysed.

32. The figures are as follows:—

	Percentage of rates paid, total amount Rs. 25,00,000.	Percentage of benefits of water-supply, Rs. 8,50,000.	Percentage of benefits of drainage, Rs. 5,54,000.	Percentage of benefits from road repairs, Rs. 2,40,000.	Percentage of benefits of street watering, Rs. 50,000.	Percentage of benefits of lighting, Rs. 2,60,000.	Percentage of benefits of conservancy, Rs. 4,55,000.	Percentage of benefits of police, Rs. 2,53,000.
1. Sampookur ...	3.1	6.4	8.7	7.2	8.2	7.5	7.4	5.1
2. Coomartolly ...	5.3	6.4	5.3	4.2	4.4	5.3	6.4	5.2
3. Burtollah ...	3.3	6.3	7.9	5.5	6.5	7.4	7.1	5.2
4. Sookea Street ...	2.5	5.1	6.1	4.6	6.3	6.1	4.7	4.4
5. Jorabagan ...	9.9	9.1	6.3	6.7	4.6	6.2	8.9	6.2
6. Jorasanko ...	4.9	8.2	6.6	5.8	6.1	8.2	7.8	6.6
7. Burra Bazar ...	16.6	5.1	5.5	6.8	6.6	6.5	7.2	8.1
8. Colootollah ...	6.7	11.8(—)*	6.0	5.3	5.7	7.0	7.6	6.3
9. Mocheepara ...	4.1	9.8	7.1	6.2	6.6	8.1	7.8	5.6
10. Bow Bazar ...	4.4	5.4	3.8	3.7	2.2	5.0	5.2	7.3
11. Puddopookur ...	3.3	5.1	4.4	4.6	4.0	6.0	4.9	4.7
12. Waterloo Street ...	16.6	1.4(+)*	5.6	7.7	8.8	4.6	4.1	6.2
13. Fenwick Bazar ...	5.6	6.5	5.1	7.4	7.5	5.1	6.1	6.6
14. Taltollah ...	3.3	6.5	5.6	4.6	4.8	4.1	4.9	5.5
15. Collingah ...	3.2	3.0	4.4	4.7	4.6	6.3	3.3	4.0
16. Park Street ...	4.4	1.2(+)*	5.2	7.4	7.3	2.5	2.3	5.5
17. Theatre Road ...	2.1	1.5	4.4	6.4	6.3	2.9	1.9	4.2
18. Hastings ...	.7	1.2	2.0	1.2	.0	1.2	2.4	3.3
Total ...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1—9 * Northern Wards ...	56.4	68.2	59.5	52.3	55.0	62.3	61.9	52.4
10—18 Southern " ...	43.6	31.8	40.5	47.7	45.0	37.7	35.1	47.3

* In these three wards the figures are not even approximately correct (vide paragraph 23).

33. This table will well repay careful examination: it distributes 25 lakhs out of Rs. 35,66,000 of the municipal receipts in 1888-89, the remaining Rs. 10,66,000 being made up of—

	Rs.
Trade and profession licenses	2,48,000
Carriage and horse tax	1,00,000
Cart registration fees	49,000
Fines and warrant fees	40,000
Tramway	44,000
Trade refuse fees	37,000
House service fees	1,94,000
Slaughter-house	37,000
Municipal market	1,18,000
Sale of water	90,000
Interest	60,000
Rents	25,000
Fees and miscellaneous	24,000
Total	10,66,000

34. Of the above amounts, trade and profession licenses are mainly paid by the riparian wards. Cart fees ultimately fall almost exclusively on the commercial and trading community. Trade refuse fees are, as the name implies, paid by trade which is subjected by long-standing usage to an additional tax on this account. The greater part of the income derived from the sale of water is paid by the shipping and the Board of Trade. The market and slaughter-house receipts are paid mainly by the European and partly by the Mahomedan community. So far as the receipts are only a fair interest on the capital expended in constructing the slaughter-house and market, they are not taxes at all, but as the slaughter-house has almost from the outset paid 11 per cent. on the capital invested, and the market 7, and since the sale of the Dhurumtollah market 10 per cent., part of the proceeds do constitute a tax on the classes using the market. Carriage and horse tax is a most fair and equitable source of income; but as more of it is paid in the southern than the northern wards, it justifies the heavier expenditure on roads in those wards. The larger item of house service fees, on the contrary, was paid much more by the northern than the southern wards, as houses with connected privies paid nothing. As about one-tenth of the largest houses in the town were allowed connections, a large proportion of which were in the Waterloo Street and Park Street wards, these wards in this respect had an advantage, while the smaller the houses, proportionately the larger was the fee. The bustee huts, which had a special rate fixed for them, averaging about 10 per cent. on the value, suffered most. The ground landlords as such, however, contributed no portion of this tax. As the Municipality performed the same service for one set of houses by means of its sewers which it performed for the other by hand labour, and as it was distinctly on the score of danger to health that privy connections were not generally sanctioned, the new Act introduced a uniform rate of 2 per cent., so that this the chief advantage which the southern wards did enjoy has ceased, and the 10 per cent. benefit which they will gain as an allowance for repairs will be approximately balanced by the 2 per cent. extra they will pay as sewage rate.

35. If due allowance therefore is made for all other sources of income of the Municipality outside rates, it will be seen that the incidence is as much against the trading and mercantile community as it is in the matter of rates. In short, by taking rates alone as the test, the comparison is decidedly against rather than in favour of these classes.

36. Similarly as regards expenditure. The total revenue expenditure of the Corporation, including Police, during the year 1888-89, was in round figures

Rs. 34,80,000, of which the heads enumerated in the tabular statement come to Rs. 27,42,000. The remaining Rs. 7,38,000 may be thus distributed—

	Rs.
* Interest and sinking fund on money borrowed for bustees ...	46,000
Ditto ditto ditto for market ...	70,000
Ditto ditto ditto for Municipal Office ...	6,000
General establishments and cost of collection ...	2,95,000
Municipal railway ...	90,000
Slaughter-house and market ...	30,000
Town survey ...	27,000
Hospitals and vaccination ...	42,000
Square mile maintenance ...	23,000
Town and bustee improvements ...	34,000
Miscellaneous ...	75,000
	<hr/> 7,38,000 <hr/>

37. It will be seen that out of this expenditure the money borrowed for bustees and the money spent from revenue on town and bustee improvements has been almost entirely spent for the pecuniary benefit of the ground landlords, and has materially enhanced the value of their property. The slaughter-house and market expenditure is a set-off against the receipts under those heads, and has been allowed for in computing the interest they pay. All the rest of the expenditure seems to be such as may fairly be divided over the whole town. Such expenditure as is necessarily omitted from the tabular statement in paragraph 32 is therefore in no way to the advantage of the trading and mercantile community.

38. The tabular statement given in paragraph 32 is thus as a whole unfavourable rather than otherwise to the mercantile, and favourable to the residential wards, and what is the lesson which it significantly teaches? That even after making allowance for the figures in regard to the water-supply in the Waterloo Street ward being somewhat fallacious, that ward and Burra Bazar, aided in a less degree by Jorabagan, *i.e.*, the three mercantile wards of the town, pay the rates and taxes on behalf of almost all the other wards in the town, except No. 2, Coomartolly (partly a mercantile ward), No. 8, Colootolla, the chief bustee ward, No. 10, Bow Bazar, No. 13, Fenwick Bazar, and No. 16, Park Street, which more or less pay their own way. Wards Nos. 1, 3, 4, 6, 9, and 11 (all having in them a very large number of houses occupied by their owners) receive more than they pay under *every* head of expenditure, as also does ward No. 14, Taltollah. Hastings is a deficit ward under every head except street watering. Theatre Road and Collingah are deficit wards under almost every head.

39. I have also totalled up separately the figures for the 9 northern and the 9 southern wards, as it seemed a pity to lose the opportunity of showing the correct figures, even though it is no part of the argument of this note to urge the claims of the south of the town as against the north. It will be seen then from these figures that 56·4 per cent. of the rates are paid for the 2,263 acres which form the nine northern wards and 43·6 per cent. of the rates for the 1,501 acres which form the nine southern wards, the populations being respectively 274,763 and 127,867. As regards benefits, the water consumption is based on population, and therefore is a reproduction of the same proportion and is valueless as a new factor, though, looking to the fact that 11,367 houses were connected in the north of the town against only 4,266 in the south, I have no doubt the northern wards get a very good share. Coming, however, to other heads, we find that the northern wards as a group receive more than their share under the heads of Drainage, Lighting and Conservancy, and less than their share under the heads of Road repairs, Street-watering and Police, and if all the six heads are combined, they get considerably more than their share. Combining all the six last heads, it comes to about 38·7 to 41·3.

40. It will now complete this review by showing in somewhat greater detail than in the note itself the effect of the old and new law on each of the groups enumerated in paragraph 22 of that note.

The incidence of rates in each class of rate-payer considered.

Group 4.—Bustee hut-owners were by far the worst off. (a) As they were allowed nothing for repairs, they had to pay 25 per cent. more than they ought under a proper valuation to have paid. (b) They had also to pay on an average 10 per cent. on this overestimated valuation as house service fees. (c) They had also to pay the full water-rate on the same valuation, though they were not allowed connections, and therefore had to fetch their water from the nearest hydrant. (d) In addition thereto they had up to 1883 neither lighting, drainage nor conservancy. These were the disadvantages and inequities under which they laboured before 1883. Since that year their condition has rapidly improved: (1) the bustees have been drained, and the filthy stagnant ditches, which everywhere seamed them, have been turned into lanes or roads; (2) roads have been made through all the largest bustees and lighted. Thus they now get their share of lighting. (3) By the aid of the roads, conservancy has become practicable, and the Commissioners have sanctioned special bustee conservancy establishments, to which cause it is mainly due that the conservancy expenditure in the north of the town is proportionately heavier than in the south. (4) If they still get a scanty supply of filtered water, they anyhow get a good supply of unfiltered water for bathing and washing in the numerous bathing-platforms that have been put up. (5) Again about five years ago a further boon was conferred upon them by freeing the public latrines. All these benefits were conferred upon them before 1889. In addition thereto (6) the new Act relieves them from the differential house service fees, averaging for huts 10 per cent., and only lays on them the uniform sewage rate of 2 per cent.; (7) it allows them 10 per cent. off the gross rent for repairs in valuing the huts—an inadequate allowance I admit—but still something; and (8) above all it enacts the provision by which their rates are paid by the ground landlords and thereby shields them from the 50 to 60 warrants per diem which were ten years ago almost the only “benefit” by which the Municipal administration was known to them.

41. *Groups 2 and 3.*—Occupiers of houses built for letting purposes and the owners thereof suffered in common under the former Act by having these houses assessed about 15 per cent. above their fair rateable value. They will now get an allowance of 10 per cent. on this account, but they are mostly situated in those wards in the town which receive more than their share of benefits, and many of the larger of them escaped all sewage tax. Henceforth they will have to pay 2 per cent. on this account, so that in regard to most of them their position is substantially unchanged. As the tabular statement in paragraph 32 shows, they have on the whole nothing to complain of.

42. Occupiers of offices, places of business, shops, &c., group (1), and the owners therefore partly of group (3), have always been over-assessed by about 15 per cent. owing to the absence of any allowance for repairs, and 10 per cent. is allowed them under the new Act, but so far as regards group (1) their real grievance is that the vast majority of them are situated in those wards of the town which pay for so much more than they receive from the municipality. This undoubtedly does constitute an exceptional tax on trade in Calcutta, which is open to very grave economic objections. The new legislation will only very slightly relieve it by raising to some extent the valuation of those properties in the town which have been hitherto so much undervalued. It is obvious that this part of the grievance in no way extends to the owners. As they pay a percentage of their rents as taxes, the higher the tax paid the better for them, as it means the higher the rent.

43. *Group 7.*—Owners and occupiers of large public buildings were not in most cases over-assessed,* but they undoubtedly paid, and will continue to pay, for much more than they receive by way of municipal benefits. The greater part of them are situated in that very ward (No. 12) which pays for so much more than it receives.

44. There remain groups No. 5, bustee owners, and No. 6, owners and occupiers of their own houses—the groups in fact on behalf of whom the memorial has been got up. As regards group 5, the ground landlords of the bustees were correctly assessed under the old law, while every other class almost was

* However, there are some conspicuous instances to the contrary. The Bank of Bengal and the Port Commissioners' Office were, I believe, much over-assessed. It is impossible to say what rent such places would command if offered for lease. Their valuations were, I fear, little under 10 per cent. on the cost of building plus land, and one of the equitable incidental advantages of the new section is that such over-assessment will henceforth be impracticable.

overassessed, and they did not pay a pice for house service. A very appreciable portion of the rates and taxes was, moreover, spent in improving the bustees, which has, during the last seven or eight years, doubled and trebled the rents they have been able to obtain. All the benefits conferred on the bustee residents—roads, drainage, lighting, conservancy, free latrines, bathing-platforms—have been at least shared by the landlords in the improvements conferred on their property thereby—improvements which the most far sighted among them have freely acknowledged by giving up lands for these roads free of cost. Under the new law the assessment of their lands will remain unaltered, while others will be reduced. They will also have to pay the uniform sewage rate. By section 269 they are made liable to pay a special rate for the conservancy of the bustees, though, as this is optional with the Commissioners, it will probably not be imposed; and they are made responsible for the rates of their tenants with an allowance of $12\frac{1}{2}$ per cent., which is fully 15 per cent. on what they have to collect from others. I have no doubt that if what the town does for them for the creation and maintenance of their high rents is compared with what they will under the new Act pay to it, they will still remain a most favoured class.

45. *Group 6.*—Owners and occupiers of their own houses are those who paid least and for whom most was done under the old law. The enormous majority of these houses are situated in the wards which pay least in proportion to what they receive, of any wards in the town, and even in these wards they have been the underassessed element; while the bustee huts and shops have been overassessed, they have been assessed at not more than half the fair amount, so that in wards which as a whole derive from two to three times as much by way of municipal benefits as they pay, they have been undervalued by 50 per cent. Under the new law, strictly administered as it should be in a few years, they will still be assessed at not more than 80 per cent. of what other houses will pay. It is my deliberate judgment that a more unfounded outcry than the cry of unfair treatment which they have raised has hardly ever been put forward.

H. L. H.

APPENDIX C.

Extracts from the evidence given in objections to valuations for assessment purposes in Ward No. I.

Called by objectors—Baboo Nilmony Mitter.—I formerly dwelt in this ward and know its circumstances well. I have several houses here. I know the general cost of building, and have built many houses, being a Civil Engineer. The best buildings in the ward are built with 10-inch bricks, others with 9 and others with 5-inch. As a general rule the smaller the bricks the less the value. The height of the lower stories varies from 9 to 11 feet, and that of second stories is about the same.

I have calculated a general rate for the cost of constructing houses, and I think this a fair statement of the cost. (Statement put in.) I think buildings might be divided into 3 classes of pucca and 3 classes of cutcha-pucca. This estimate is for first class cutcha-pucca, and for first class ground-made bricks. No houses in this quarter are made of first class table-made bricks; there may be some of second class table made. In my opinion first class ground-made is better than second class table-made.

Land is very seldom leased out for building purposes. Generally the value of land sold for building purposes is more than the proper multiple of the rent of land leased out for bustee land. The reason for this difference is in the desire of people to have a house of their own, which runs up the price of the land. This is due to the desire which every one has to leave a house as a shelter to his widow and children. He would rather even have 2 or 3 cottahs of land of his own with tiled huts to live in, than live in a hired pucca house.

To Chairman.—Many bustee lands in this ward are now being turned into building land. This is due to there being more middle-class people able to afford to build a residence, and also to more people out of Calcutta wishing to reside in Calcutta.

Then as regards deterioration, it is our universal experience that, if a person builds a house carefully and prudently, he cannot expect to sell it for

what he has spent on it. The case of Baboo Kirty Chunder Mitter illustrates this. He built a house for upwards of four lakhs, and could only sell for one lakh and fifty thousand about five or six years afterwards. This was an extreme case; the house was built under my supervision. This is more marked in the case of large than small houses. I think that even in small houses there would be some loss. The reason is that when a man builds he builds according to his own ideas of personal comfort and taste, and if he wants to sell, he cannot get a purchaser with just the same ideas.

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Called for Corporation—Mahtap Chand Mullick, Assessor to the Corporation.

Cross-examined.— If a house is built for, say, Rs. 10,000, and the owner has to part with it, he would probably not get the same price. It may not suit the taste or accommodate the purchaser to the same extent as the person who built it for his own use. The Hindoos as a rule would prefer to build their own dwelling-houses to buying houses ready built by others. As a rule houses in the native quarter of the town are not kept in the same good repair as those built for Europeans.

Note by Baboo Nilmony Mitter, C.E.

(1) When a new building is put up for sale, it fetches a price always less than the original cost. The proportion of this difference varies, as the cost of construction, the higher the cost, the greater is the percentage of the difference between the cost of construction and the selling price. A general proportion should be definitely fixed by a well considered scale, and should not be left to the guess-work of any and every individual. I may here suggest that some general scale varying in proportion of depreciation, somewhat similar to the following, should be adopted:—

Cost of construction.

Exceeding. Rs.	Not exceeding. Rs.	Amount of depreciation. Rs.
0	5,000	... 10
5,000	10,000	... 15
10,000	25,000	... 20
25,000	50,000	... 25
50,000	1,00,000	... 30
1,00,000	2,00,000	... 40
2,00,000	upwards	... 50

APPENDIX D.

ON THE PRINCIPLE OF LOCAL SELF-GOVERNMENT.*

"THE hearing and determining of an objection preferred against an assessment made by a subordinate by his executive superiors is, your memorialists would venture to say, subversive of the principle of Local Self-Government and can never be satisfactory." (Extract from page 4 of the printed Memorial.)

1. This extract omits all reference to the fact that, while for the convenience of the assessee he can first get a decision in his case from a superior officer of the Corporation, this is not his *appeal*, for which a perfectly impartial tribunal is provided in the Small Cause Court. Also that the procedure is borrowed from Bombay, the Municipality in all India in which Local Self-Government is considered to have been most successful, and in which it has also been most cautiously tempered by checks and limitations.

2. If Assessment Committees still remain in England, it is nevertheless the fact that they have been largely discredited during the last generation, and their tendency to partiality admitted and controlled.

* *Vide* foot-note to paragraph 31 of the Note.

The parish was originally the unit of Municipal Government, and many parishes adopted the system of appointing Assessment Committees to revise the valuations of the Poor Law Overseers, "but experience showed that such a Committee seldom produced a satisfactory result to the parish. It was difficult to insure strict impartiality in its proceedings, or at least to insure perfect confidence therein, and the Poor Law Board discouraged such course of action. They could not prevent the formation of the Committee, but such Committee had no authority to charge the poor rate with any expenses, the Board would render no assistance to enable such expenses to be so paid, and *neither the Overseers nor the rate-payers were in any way bound by the valuation made by such Committee.*" (Lumley's Parochial Assessment, 7th edition, page 151.) Union Committees have now taken the place of Parish Committees, but the tendency in England is more and more to place power in the matter of assessments in the hands of experienced officers under the supervision of Judicial bodies.

3. The Act to provide for uniformity in the assessment of rateable property in the metropolis was passed in 1869.

Metropolitan Act of 1869.

The original assessing authorities under it are the Poor Law Overseers, who are placed under the supervision of a 'Surveyor of Taxes' appointed by the Commissioners of Inland Revenue or by the Treasury. When the overseers have made their valuation, they have to send the list to the Surveyor of Taxes, who enters any alterations which he thinks fit, and passes the list on to the Union Assessment Committee (section 8). The Assessment Committee then revises the valuation list (section 14), after which any rate-payer or the Overseers, or the Surveyor of Taxes, if they feel aggrieved at a decision of the Union Assessment Committee, may appeal to the Justices in Special Sessions (section 19), and the same persons may appeal against the decision of the Special Sessions to a superior tribunal called "A Court of General Assessment Sessions," or, at their option, may appeal direct to the superior court from the decision of the Union Assessment Committee (section 32); and by a most important section (53), whenever the Surveyor of Taxes either objects before the Assessment Committee, or appeals to the Special Sessions or General Assessment Sessions, his valuation "shall be inserted in the valuation list by the Assessment Committee, Special Sessions or Assessment Sessions, unless it is proved to the Assessment Committee, Special Sessions or Assessment Sessions, that such amount ought not to be so inserted."

4. This is quite sufficient to show that in London the Union Assessment Committee plays a very subordinate part, and that any tendencies to partiality are carefully held in check. Not only is there a double appeal against its decision, but all real power is given to an officer appointed by the Government, whose decisions throw by law the *onus disprobandi* on the opposite party. It is needless to say how difficult it is to discharge this onus in such a matter as house valuation, or to point out that practically the Surveyor of Taxes is the most influential authority. Is there any true analogy between an Assessment Committee thus liable to be appealed against by its own officers as well as by an independent officer appointed by Government and our appellate benches under the old law, which were ultimate authorities, against whose decision there was no appeal.

5. Again in England owners, as such, have no votes because all rates are paid by occupiers, and as the result all municipal power falls into the hands of occupiers. This is one of the evils in the English municipal system which Mr. Goschen's Committee reported as urgently needing a remedy, and they therefore recommended that the rates should be shared between the owners and the occupiers. What can be a greater contrast with what we see in Calcutta, where owners are by far the dominant element in the municipality?

6. Indeed one of the first distinctions to be clearly grasped by any one who takes an interest in Municipal Self-Government and elective institutions in India, is that they lead to results exactly the opposite to what they lead to in America, England, or other European countries. There they have a tendency to weaken the rule of the classes and transfer power to the masses. Here they, on the contrary, tend to increase the power of the classes or their equivalent among Hindus, the *bhadra log*. There their tendencies are anti-conservative and anti-landlord; in India their tendency is to augment the influence of the landlord and conservative classes.

7. To revert, however, to the specific allegation that to follow the example of Bombay and dispense with an Assessment Committee is subversive of 'the principle' of Local Self-Government. The correct principle of Local Self-Government, I take it, is the substitution of government by a local body for the direct rule of the national Government, so far as concerns the administration of matters affecting the welfare of particular municipalities or other local units. If a good system of election of the local body can be devised, the Local Self-Government is more complete, but a system of election which yields fallacious results is obviously worse than the well exercised nomination of local councillors.

8. Now it is surely obvious that, if Local Self-Government is to work well, it should be subject to the same limitations in its administration which Imperial or Provincial Government is subject to, first and foremost of which is the abnegation of judicial functions. It must leave all that is judicial in its work to be done as far as possible by functionaries who it purposely makes as independent as possible of itself. Secondly, it is found wherever Government is reposed in Parliaments or Assemblies that such bodies must not interfere with the executive administration except by way of censure, and of replacing one set of ministers by another, if they lose the confidence of the assembly. In France, Italy, England and most of her colonies the entire executive authority is vested in the Crown and Ministry, or Governor and Ministry, or President and Ministry, as the case may be. The Parliament or Assembly exercises financial and legislative control, and can by a vote of want of confidence change the Ministry, if it thinks fit, though this is practically not for efficient or inefficient executive action, but according to the balance of political parties. In the United States of America the executive is still stronger, and a better system as many think prevails. The executive in its own proper line is quite independent for periods of four years, except that certain well specified acts of power require ratification by the Senate. In Germany the executive is totally independent, though the financial and legislative power of the Parliament is considerable.

9. Now the great danger of all popular bodies is that they are insatiate of power and intolerant of those very checks on its exercise, which they appreciate so highly when they act as a restraint on authorities other than themselves. If Local Self-Government is to succeed in large and important cities, it is indispensably necessary that local bodies should, as far as practicable, abstain from direct executive work, and above all from exercising quasi-judicial functions. Far from the principle of Local Self-Government being subverted, by guiding the energies of the local bodies into administrative channels, and fending them off from judicial functions, it is the greatest possible boon that can be conferred upon them. It would be easy to show from the history of the Calcutta Municipality during the last decade that it has been most successful precisely when it has confined itself to general administration, such as the control of the finances, water-supply extension (a department which has been particularly well managed), bustee improvements, laying down general rules for guidance, &c., &c.; whereas, as all the Commissioners well know, it has failed most conspicuously in personal questions, when each Commissioner is subjected to private solicitation and unwholesome pressure, and gives his vote under the influence of motives, very few of which are consistent with the well-being of the city. A single officer acting under a sense of responsibility would dispose of these personal questions far more equitably than the Commissioners as a body, where individual responsibility is overlaid by numbers, and the most unblushing solicitation is practised.

9. Similarly the desire which the Commissioners have lately manifested to interfere in the work of the executive by a Complaints Committee is, I have no doubt, a thoroughly unsound move, emanating from a wish to concentrate in their hands all power, instead of merely the legitimate power of administration. Neglect of complaints is obviously a fertile field for finding fault with any public functionary. Many complaints are unreasonable, but those who make them do not think so, and resent their being rejected. Again, among a very large number of complaints some will probably not be attended to as promptly or answered as civilly as they might be. Hence, without any serious defect in work, it will always be easy to get up plausible grievances under this

head, and to represent that it would be for the benefit of the public to appoint a Committee to see that complaints receive due attention. It was impossible to persuade the Commissioners that this was a false move; but I prophesied exactly what would happen, viz., that the Complaints Committee would find no field for their operations in the direction they anticipated, that is, in finding out complaints which had received no attention, but that they would degenerate into a mere appellate tribunal from the orders of responsible municipal officers, after they had enquired into cases; this is precisely what has happened. It was very soon found that the Committee took two months to dispose of a single complaint, while such complaints come in at the rate of 20 per diem, and hence an order was passed that it should only have jurisdiction in the case of complaints referred to it by the Chairman or by some Commissioner.

10. The result has been the creation of an executive appellate tribunal of the worst type. Ordinary persons, who are more likely to need redress, cannot get access to it; it is reserved for a few favoured individuals who have influence enough with some Commissioner to get their case referred to it, that is, for the very persons who would be sure to receive adequate attention, independently of any such Committee. Most of the more reasonable and experienced Commissioners fight shy of the Committee, whose operations have consequently fallen into the hands of other and younger men who are, among the whole body of the Commissioners, perhaps the most incompetent to exercise the functions they aspire to. There are certain classes of cases in which such bodies can work with advantage, cases in which officials are inclined to be too official, and a little non-official judgment is beneficial accordingly. Though disliking the Committee, I have myself made over two or three cases of this class to it, but the bulk of the cases it takes up is just the opposite, cases in which an interested party is unable to circumvent the impartiality of a high official, but easily gains a verdict from a Committee whose first principle of action is that officials, as being disinterested, must necessarily be wrong, and complainants being interested, must necessarily be right.

11. If, then, Local Self-Government is to be a success, it is as necessary for the Commissioners, as it is for the Parliaments of free countries, to leave all judicial functions, as well as executive details, to others, and to content themselves with financial and administrative control. So far from my action in leaving valuations in the last resort to a judicial tribunal being subversive of Local Self-Government, it is eminently favourable to its successful development in its own proper field.

12. The history of this assessment question at Bombay and in Calcutta is the best possible evidence of this. The difficulty of assessing houses that never are let, at the reasonable rent which they may presumably be expected to fetch, is one which, as I have shewn, has been acknowledged in England as much as in Calcutta, but still, owing to the absence of an Assessment Committee, it has presented no special difficulties at Bombay. Houses not intended to be let are valued by comparison with houses which are intended to be let, and thus equity satisfied. The plea relied on in Calcutta that houses not built to be let must be valued according to the actual rent procured for other houses equally not built to be let, and therefore not suitable for tenants, which has led to such gross under-valuation in this city, has never prevailed in Bombay. When I wrote and enquired on the subject I received the reply that—"The difficulty you mention does not trouble us here, though I have very little doubt that if we had an Assessment Committee, that it or some other like it would crop up."

13. All forms of Government have their weak sides, popular no less than autocratic, and perhaps the most fatal weakness in popular bodies is their inevitable tendency to regard as their best friends those who flatter them, encourage them to shake off all restraints and urge them on from one excess to another; while they treat as their enemies those who wish them to work under those salutary checks, which all men need, popular bodies perhaps most of all, and which, if firmly maintained, afford the best guarantee for their permanent success.

H. L. H.

**RESOLUTION ON THE ADMINISTRATION REPORTS OF THE
REFORMATORY SCHOOLS AT ALIPORE AND
HAZARIBAGH FOR THE YEAR 1889.**

RESOLUTION.

JAILS.

Darjeeling, the 5th June 1890.

READ—

- (1) Letter No. 3281, dated the 7th April 1890, from the Inspector-General of Jails, forwarding the Report of the Administration of the Alipore Reformatory School for the year 1889.
- (2) Letter No. 3282, dated the 7th April 1890, from the Inspector-General of Jails, forwarding the Report of the Administration of the Hazaribagh Reformatory School for the year 1889.

Read also—

The Reports for the year 1888, and the orders of Government recorded thereon.

The Alipore School opened in 1889 with 106, and closed with 108, boys. Twenty-eight were admitted during the year, while 22 were released, 2 died and 2 escaped. One of the boys who escaped has since surrendered himself, and the warder who was responsible for the incident has been departmentally punished. There were no serious offences, and discipline was maintained with a smaller number of punishments than in 1888. Punishment by cutting marks has been in a great measure superseded by direct fines of the money earned by the boys, a move in the right direction. There was a decrease in the number of cases in which penal diet was resorted to as a punishment. The year under review was exceptionally healthy. Admissions to hospital fell from 2·43 in 1888 to 1·70 in 1889.

2. No change has been made in the way in which the day is divided between school and work. The boys work for seven hours, and have in addition one hour of compulsory school. They can also attend the night school from 6 to 8 P.M. It is satisfactory to observe that the average number of boys present at the night school increased from 98 in 1888 to 100 in 1889. Here, as at Hazaribagh, English is taught to the more advanced boys. The mark system continued to work well. The number of boys entitled to marks increased, and the average weekly earnings rose from Rs. 2-4-3 in 1888 to Rs. 2-10. The total amount earned during the year was Rs. 229-14-9, including payments for extra work, of which Rs. 175-0-9 were deposited in the Government Savings Bank.

3. Of 74 released boys, concerning whom reports were received, it appears that 7, or 9·45 per cent., were in jail, 5 were reported as not bearing a good character, and 1 died; the remaining 61 boys, of whom only 2 follow the trades they learned at school, are believed to be leading honest lives.

4. The cost of maintenance increased from Rs. 125-9-6 in 1888 to Rs. 137-9-5 for each boy, and the cost of diet rose from Rs. 3,277-14-3 in 1888 to Rs. 3,653-10-9 owing to the higher rates paid for articles of rations. The same cause has operated to increase the expenditure on diet in the Alipore Jail and the Dullunda Lunatic Asylum.

5. The manufactory account shows a profit to the school of Rs. 7,313-15-8 against Rs. 7,023 in 1888. No allowance is made in the account for value of the labour of the boys employed, or for wear and tear of block: it merely shows the balance of actual receipts over actual expenditure. Book-binding, carpentry, and tinsmith's work showed net profits of Rs. 3,074-4-5, Rs. 1,267-12-2, and Rs. 1,144-1-10, respectively. The profits on cane-work increased from Rs. 335-12-5 in 1888 to Rs. 383-15. Printing has been introduced with excellent effect, and yielded a profit of Rs. 1,086-0-6 during the year under review. The Superintendent strongly advocates the extension of this branch of manufactures, and in view of the ready employment which is found by proficients in this trade, the Lieutenant-Governor would be glad to see a large number of the boys in the Reformatory instructed in it.

6. The Lieutenant-Governor regrets the death of Mr. Kirschner, the late Superintendent, the value of whose services has frequently been recognized by Government. His acknowledgments are due to the Board of Management of the School.

7. The number of boys confined in the Hazaribagh School rose from 223 at the close of 1888 to 267 at the close of 1889. The daily average population was 244.06 against 229.50 in 1888. The Lieutenant-Governor regrets to observe that the health of the school shows no general improvement, although there were only 2 deaths as against 5 in 1888. There were no fewer than 217 admissions to hospital as against 133 in 1888 and 91 in 1887, and the daily average of sick rose from 6.67 to 6.68. No explanation has been offered of this rise in the number of admissions. It may be that an analysis of the medical statistics would disclose a reason for this apparent unhealthiness; and His Honour would be glad to have a further report on the subject from the Inspector-General of Jails.

8. Discipline was well maintained during the year, no serious offences were committed, and there were only 268 punishments against 367 in 1888. It is noticeable, however, that while there was a decrease in the number of offences under all other heads, there was a slight increase in the number of punishments for stealing, 89 in 1889 to 87 in 1888. "Whippings" have increased from 10 to 17, and "hand canings" from 82 to 89. In the latter instance, the increase has been almost proportional to the increase in population. The punishments by "fines and forfeiture of marks" show a decrease from 203 to 110.

9. The daily routine is the same as at Alipore, except that the hours of the night school differ slightly; the night school at Hazaribagh being held from 6 to 7-30 P.M. It is very satisfactory that out of 244.06, the daily average number, 235 boys on an average attended the night school. The mark system worked well. The average earning per week was Rs. 10-11-3 against Rs. 9-15-2 in 1888. The total earnings were Rs. 556-9-6 against Rs. 570-6 in the previous year.

10. Reports were received regarding 115 boys; 75 reports were favourable; in 17 cases it was not known what had become of the boys; 5 had been re-convicted and sent to jail, and 3 were looked upon with suspicion by the police. Eleven boys continued to work at the trades they learned in school, and 4 died.

11. The expenditure rose from Rs. 89-13-10 per head in 1888 to Rs. 92-10-1 in 1889. The increase was mainly due to the issue of warm coats and blankets to the boys and to the supply of furniture for the school.

12. The manufacturing account shows a profit of Rs. 3,301-7-8 against Rs. 3,757-2-11 in 1888, but the school is said to be in a better position in regard to its manufactures, and the new industries of shoe-making, leather-tanning and carpet-weaving have been started on a satisfactory basis. Besides these trades, carpentry and iron and tin work are taught.

13. The Lieutenant-Governor notices with pleasure that the school is regularly visited by the official visitors, who have again very favourably reported on Mr. Hill, the Deputy Superintendent. Dr. Moorhead deserves credit for his careful and efficient management of the school.

ORDER.—Ordered that a copy of the Resolution be forwarded to the President of the Board of Management of the Reformatory School at Alipore for information and communication to the Members of the Board.

Ordered also that a copy of the Reports and a copy of the Resolution be forwarded to the Inspector-General of Jails for information and communication to the Superintendent of the Hazaribagh Reformatory School.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

Offg. Chief Secretary to the Govt. of Bengal.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 7th June, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.	
BENGAL.				
Western Districts.				
BURDWAN DIVN.	1	Burdwan June 7, '90	1.06	
		Culna ...	3.12	
		Cutwa ...	0.25	
		Ranigunge ...	0.63	
		Burdwan ...	...
		Culna ...	...
		Cutwa ...	...
		Ranigunge ...	...
		Srs. 18	} per rupee.	
		14		
		14½		
		17		
	2	Bankoora " 7, '90	1.45	Weather—hot and cloudy. Ploughing and sowing of rice going on. <i>Aus</i> seedlings and other standing crops coming on well. Common rice selling at 18 seers per rupee at Sudder and 17½ seers at Bissenpore.
	3	Birbhum " 7, '90	2.02	Weather—very stormy. Ploughing going on vigorously, and lands are being prepared for sowing. Price of rice 16 to 20 seers per rupee.
		Rampore Haut ...	1.80	
4	Midnapur " 7, '90	0.50	Weather—stormy. Prospects good. Cultivation going on. Some rice sown. Prices of common rice have risen slightly:—	
	Sudder ...	...	Srs. Ch. 17 0	
	Contal ...	...	19 0	
	Tumlook ...	...	13 5	
	Ghatal ...	...	16 0	
			} per rupee.	
5	Hooghly " 7, '90	2.52	Weather—cool since the heavy rain of the 5th instant. Ploughing and sowing of <i>aus</i> in progress. Rain has done much good. Prices of common rice:—	
	Serampore ...	0.01		
	Jehanabad ...	0.23		
	Sudder ...	...	Srs. 13	
	Serampore ...	...	16	
	Jehanabad ...	...	16	
			} per rupee.	
	Howrah " 7, '90	1.99	Weather—hot, occasional rain. <i>Aus</i> and <i>amun</i> seedlings and sugarcane and jute doing well. Prospects of crops satisfactory. Common rice is being sold at 13 seers per rupee.	
Central Districts.				
PRESIDENCY DIVN.	6	24-Pergha June 7, '90	2.72	Close and showery. Weather very favourable for all crops sown and being sown, and ploughing proceeding actively for the late rice crop. Prices stationary.
	7	Nudden " 7, '90	1.22	Weather—cloudy and close with occasional showers. Sowings of early rice finished. Young plants doing fairly. More rain needed.
		Kushten ...	0.60	
		Meherpore ...	0.20	
		Chundanga ...	1.01	
		Bansghat ...	1.59	
	8	Khoorna " 7, '90	0.48	Weather—seasonable. Sowing of <i>aus</i> and ploughing for <i>amun</i> going on. <i>Til</i> is being reaped; outturn fair.
		Satkhiria ...	0.56	
		Bagirhat ...	1.04	
	9	Jessore " 7, '90	0.77	Weather—hot and cloudy. Cultivation still in progress. Young plants of <i>aus</i> , <i>amun</i> , jute, and indigo thriving. Prices of rice stationary.
		Magura ...	0.07	
		Narail ...	0.43	
		Bongong ...	0.32	
	10	Moorshedabad " 7, '90	0.06	Weather—hot with high southerly wind. Rain much needed, especially in the Sudder subdivision, where only 6 annas of the usual area have been sown with <i>aus</i> rice.
	RAJSHAHY DIVN.	11	Dinagapur " 7, '90	7.72	Weather—cloudy and stormy with heavy rain on two nights. Jute sowings now completed. Crops doing well. Price of rice stationary.
		Thakurgaon ...	7.93	
12		Rajshahye " 7, '90	0.52	Weather—very hot. Slight rain during the week. Sowing of paddy not finished yet. Occasional rain has done good to standing crops.
		Natore ...	1.80	
		Nowgong ...	2.29	
13		Rungpur " 7, '90	9.66	Monsoon has broken with its usual concomitants. Excessive rain has caused damage to young <i>amun</i> and jute. <i>Aus</i> rice coming into ear, and all crops look most promising.
		Kurigram ...	7.13	
		Gaibanda ...	9.30	
		Nilphatnari ...	7.42	
14		Bogra " 7, '90	2.83	The rains have apparently set in. Jute and <i>aus</i> paddy doing well. Preparation for <i>amun</i> paddy going on. Common rice selling at 18 seers per rupee.
		Sherpur ...	2.88	
		Nowkhilla ...	2.15	
15		Pabna " 7, '90	1.52	Weather—hot in the day, but cool in the evening and morning. The late rain has done good to the standing crops, and jute and sugarcane are being more extensively grown. Prices rule as before.
16		Darjeeling " 7, '90	2.28	Weather—rainy and foggy. <i>Bhutta</i> , <i>chota marua</i> , and <i>bhadoi</i> progressing favourably. Prospects generally good.
17		Julpigoree " 7, '90	9.08	Weather—rainy and seasonable. <i>Bhadoi</i> and jute progressing favourably. Common rice selling at 16 seers per rupee.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca June 7, '90	4.02	Weather—hot and sometimes cloudy. Jute and paddy thriving. <i>Aus</i> paddy on chur lands being harvested. Price of common rice 13 to 17 seers per rupee.
	19 Furreedpur „ 7, '90	Nil	Weather—seasonable. Prospects of crops favourable. Rice selling at Sudder 14 seers, at Madaripore 14½ seers, and at Goalundo 15 seers per rupee.
	20 Backergunge „ 7, '90	0.40	Weather—hot. Prospects of crops good. Common rice selling at from 12 to 16 seers per rupee.
	21 Mymensingh „ 7, '90	4.67	Weather—seasonable. Prospects of standing crops good. <i>Aus</i> and jute thriving well. Coarse rice sells at 13 seer 10 chittacks per rupee.
Chittagong Divn.	22 Chittagong „ 7, '90	1.53	Weather—seasonable. Prospects of <i>pania aus</i> crop good. Price of common rice steady.
	23 Noakholly „ 7, '90	0.05	Weather—warm and sultry. State of the <i>aus</i> paddy plants good. 10 annas on average of <i>amus</i> paddy have been sown. Price of good rice has risen to 14 seers per rupee.
	24 Tipperah „ 7, '90	2.99	Weather—cool, cloudy, damp with occasional storms. <i>Aus</i> , <i>amun</i> , and jute plants flourishing. Prospects very good. Prices stationary. Influenza and fever prevalent, causing serious inconvenience to labour of all kinds.
	25 Chittagong Hill Tracts „ 6, '90	0.67	Weather—very hot, and cloudy during the latter part of the week. Sowing in <i>jums</i> still continues. Sugarcane progressing. Price of common rice 12 seers 5 chittacks per rupee.
BEHAR.	Hill Tipperah „ „	„	Report not received.
	26 Patna „ 7, '90	Nil	Weather—very hot. Paddy and <i>bhadoi</i> crops are being sown. <i>Marwa</i> and paddy sown during the previous weeks have germinated well. Harvesting of <i>cheena</i> going on. Prices of food-grains almost stationary.
	27 Gya „ 7, '90	0.01	Weather—hot and cloudy. Prospect of sugarcane good. Lands are being prepared for sowing of <i>rohania mori</i> . Prices of food-grains almost stationary.
	28 Shuhabad „ 7, '90	Nil	Weather—hot. Slight rain last night (6th). The only standing crop is sugarcane, which is doing well. Lands are being prepared for <i>bhadoi</i> crops. Prices stationary.
PANA Divn.	29 Durbhunga „ 7, '90	Nil	Weather—cool and cloudy with high east wind. Paddy, <i>cheena</i> , and indigo doing well. Harvesting of <i>mung</i> in progress. Rain now much wanted to facilitate cultivation of <i>bhadoi</i> lands. Prices rising.
	30 Mozufferpur „ 7, '90	Nil	Weather—warm and cloudy. Some slight local showers. Indigo arriving at maturity, and a good crop nearly everywhere. Paddy, <i>cheena</i> , and <i>makai</i> are being sown: those already sown are promising well.
	Sitamarhi „ „	0.06	
	31 Sarun „ 7, '90	Nil	Weather—cloudy, hot and sultry. East wind prevailing. Rain appears imminent. Indigo pretty fair, but is in want of rain. <i>Cheena</i> and paddy seedlings also want rain.
BHAGULPORE Divn.	32 Champaran „ 7, '90	Nil	Weather—cloudy with high east wind. Paddy and <i>bhadoi</i> sowings progressing. <i>Cheena</i> and <i>kodo</i> are promising crops. Indigo doing well. Common rice selling at 17 seers per rupee at Motihari.
	33 Monghyr „ 7, '90	Nil	Weather—very sultry up to Friday (6th); since then cooler with high east wind. More rain wanted. Sowings in the Jamui subdivision have stopped owing to want of rain. In the northern part, sowing of <i>bhadoi</i> going on. <i>Cheena</i> and <i>makai</i> germinating.
	34 Bhagulpur „ 7, '90	0.14	Weather—sultry with showers. Sowings of <i>bhadoi</i> nearly completed. Lands are being prepared for winter rice. Crops on the ground, including indigo, doing well.
	Banka „ „	0.34	
	Sooapool „ „	0.60	
	35 Purneah „ 7, '90	1.85	Weather—cloudy and cool. <i>Bhadoi</i> cultivation going on. Paddy, jute, indigo, and sugarcane all doing well.
	Kishengunge „ „	4.36	
	Arrareah „ „	0.82	
	36 Maldab „ 7, '90	0.93	Weather—cool for the season of year. Rain more or less in all parts except in Ratna thanmah. The sky has been overcast with clouds and rain threatening throughout the week. Sowings of <i>bhadoi</i> and <i>amun</i> paddy and jute continue. Mulberry plants doing well. Common rice selling at from 13 to 17 seers per rupee.
	Chanchal „ „	0.44	
	Shibgunge „ „	2.10	
	Gajole „ „	0.35	
	37 Southal Pergas „ 7, '90	1.08	Weather—generally cool and stormy, but very hot in Godda. Rain much wanted in Deoghur for the rice seedlings; elsewhere ploughing and sowing of <i>makai</i> and some rice going on briskly.
	Deoghur „ „	0.12	
	Godda „ „	0.95	
	*Pakour „ „	1.80	

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack	...	Report not received.
	39 Pooree	...	Report not received.
	40 Balasore " 7, '90	1.90	Weather—cool and cloudy. Rice sowings commenced in most parts of the district. Number of coolies on relief-works 153.
CHOTA NAGPORE.			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPORE DIVN.	41 Hazaribagh June 7, '90	0.60	Weather—very hot; cloudy and unsettled latterly. Sugarcane doing well. Lands are being ploughed and sowings commenced in places. Rice selling at from 14 to 20 seers per rupee.
	42 Lohardugga " 7, '90	1.35	Weather—seasonable. Ploughing and sowing of <i>gora</i> and <i>goondli</i> rice continue.
	Palamow (up to 2nd June)	0.33	Rain wanted in Palamow. Storms have caused some damage to the mango crop. Prices steady.
	43 Singbhoom June 7, '90	0.25	Weather—very unsettled; storms almost daily towards evening, and the remainder of the day very sultry and cloudy. Sowing in full swing everywhere. Sugarcane thriving. Price of rice at Chybassa 20 seers per rupee.
CHOTA NAGPORE DIVN.	44 Manbhoom " 7, '90	0.85	Weather—hot. Sufficient rain in the south of the district, and sowing of paddy, <i>arhar</i> , and <i>goondli</i> going on briskly. In the north the rainfall is deficient and sowings are backward. Rice sells at from 18 to 23 seers per rupee.
	Govindpore	0.42	

Published for general information.

CALCUTTA; REVENUE DEPT.,
The 10th June, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

STOCK IN HAND AS COMPILED ON -													
NAMES OF MARKS.	1st week of June 1889.	1st week of July 1889.	1st week of August 1889.	1st week of Sept. 1889.	2nd week of Oct. 1889.	1st week of Nov. 1889.	1st week of Dec. 1889.	1st week of Jan. 1890.	1st week of Feb. 1890.	1st week of Mar. 1890.	1st week of April 1890.	1st week of May 1890.	1st week of June 1890.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Ballaahatta	7,67,500	8,73,000	7,32,700	6,62,000	5,05,000	4,54,000	2,95,500	3,60,000	5,48,000	9,51,100	13,22,500	16,94,000	9,83,500
Ooladanga	88,000	86,500	78,700	74,400	71,000	67,400	55,400	63,400	83,500	1,02,000	1,12,500	88,000	84,700
Chitpore, Golabaree, Coomer- troo, Hakibola, and Culp Ghat.	6,36,500	6,55,400	6,97,700	5,76,300	6,74,100	6,33,200	5,85,000	6,00,400	5,98,500	5,83,800	5,91,000	5,97,800	4,79,500
Puthurhatia, Potta, and Jorabagan.	2,500	2,000	3,000	4,000	5,000	8,000	3,000	4,000	5,000	4,000	3,000	4,000	3,000
Tallypore, Chillah, Kidderpore, and Moonshigunge.	1,19,700	1,63,700	1,30,700	73,500	64,500	65,300	68,100	82,700	98,100	1,31,200	1,36,550	1,32,000	1,19,450
21 Minor Basars (estimated) ...	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 3,129 in number (estimated).	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000
Boldyabatty, Nowabgunge, Bhuddeswar, and Chander- sagore.	19,925	19,908	18,117	14,265	14,383	13,410	14,050	25,425	19,605	33,400	31,225	19,380	22,762
Total ...	21,84,125	22,60,506	21,30,917	18,93,463	18,55,022	17,31,310	15,13,060	15,08,075	18,43,506	22,60,300	25,77,373	25,61,609	21,85,112
On Railway premises on both sides of the river.	6,278 (on 3rd June 1889.)	7,750 (on 3rd July 1889.)	4,179 (on 3rd Aug. 1889.)	9,698 (on 3rd Sept. 1889.)	8,808 (on 3rd Oct. 1889.)	14,011 (on 3rd Nov. 1889.)	8,677 (on 3rd Dec. 1889.)	58,007 (on 3rd Jan. 1890.)	53,035 (on 3rd Feb. 1890.)	47,088 (on 3rd Mar. 1890.)	54,008 (on 3rd Apr. 1890.)	54,033 (on 3rd May 1890.)	11,297 (on 3rd June 1890.)
On boats un- loaded " " { By Port Com- missioners' re- turns.	15,096 (1st to 3rd June 1889.)	25,010 (1st to 3rd July 1889.)	1,32,232 (1st to 3rd Aug. 1889.)	25,239 (1st to 3rd Sept. 1889.)	1,853 (1st to 3rd Oct. 1889.)	21,324 (1st to 3rd Nov. 1889.)	29,659 (1st to 3rd Dec. 1889.)	61,641 (1st to 3rd Jan. 1890.)	68,798 (1st to 3rd Feb. 1890.)	64,309 (1st to 3rd Mar. 1890.)	57,743 (1st to 3rd Apr. 1890.)	57,743 (1st to 3rd May 1890.)	57,743 (1st to 3rd June 1890.)
By Canal returns	15,297 (1st to 3rd June 1889.)	27,106 (1st to 3rd July 1889.)	29,345 (1st to 3rd Aug. 1889.)	19,881 (1st to 3rd Sept. 1889.)	45,222 (1st to 3rd Oct. 1889.)	14,718 (1st to 3rd Nov. 1889.)	8,335 (1st to 3rd Dec. 1889.)	1,31,815 (1st to 3rd Jan. 1890.)	2,42,044 (1st to 3rd Feb. 1890.)	1,34,547 (1st to 3rd Mar. 1890.)	88,419 (1st to 3rd Apr. 1890.)	23,975 (1st to 3rd May 1890.)	23,937 (1st to 3rd June 1890.)
Grand total of Stocks ...	22,22,064	22,20,352	22,96,073	19,48,282	18,97,914	17,81,863	15,40,242	17,00,498	21,81,251	22,06,503	25,08,785	24,43,474	22,45,732
Probable stock available for exportation by sea.	11½ lakhs	12½ lakhs	13½ lakhs	9 lakhs	8½ lakhs	7½ lakhs	5 lakhs	7½ lakhs	11½ lakhs	14½ lakhs	19½ lakhs	18 lakhs	12 lakhs

STATISTICAL DEPARTMENT,

The 9th June, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																	
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																				
Western Districts.																				
1	Bardwan	13 12	13 4	12 4	...	...	...	12 0	12 0	11 10	15 6	15 6	14 4	...	...	...	
2	Bankoora	15 0	15 0	14 0	20 0	20 0	17 0	16	17 8	15 0	19 0	20 0	17 8	...	...	...	
3	Beerbhoom	16 8	16 8	15 0	...	...	...	13 8	12 12	12 0	16 0	15 12	13 0	...	...	...	
4	Midnapore	14 0	14 0	10 0	...	...	...	13 12	13 8	11 0	16 4	16 0	15 8	...	...	...	
5	Hooghly	13 0	13 0	13 0	...	...	...	8 0	8 0	10 0	13 0	13 0	12 0	...	...	...	
	Howrah	...	...	...	...	...	...	11 4	11 4	10 0	14 0	14 0	13 12	...	...	...	
Central Districts.																				
	Calcutta	13 5	13 8	12 12	17 8	17 8	16 8	8 10	8 15	9 11	14 6	13 4	12 15	18 13	19 13	16 13				
6	24-Pergunnahs	15 4	14 8	13 4	17 4	18 8	18 0	8 0	8 0	8 0	14 0	14 8	14 0	...	...	...	
7	Nuddea	15 0	15 0	14 15	20 0	20 0	20 0	11 6	11 0	12 0	12 13	13 5	14 2	...	...	...	
8	Khoolna	...	...	...	...	...	...	12 0	13 8	10 12	16 0	16 0	13 0	...	...	...	
9	Jessore	13 0	13 0	11 4	...	...	...	11 0	11 0	11 0	15 0	14 8	14 0	...	...	...	
10	Moorshedabad	16 0	16 0	14 8	...	...	...	10 0	10 0	11 8	13 5	13 5	14 0	...	...	...	
11	Dinapore	19 4	19 4	14 0	16 0	16 0	24 8	13 4	13 3	13 4	16 0	15 12	15 8	...	...	...	
12	Rajshahye	15 12	17 4	15 0	22 8	24 0	19 8	12 12	12 12	10 8	14 4	13 8	12 0	...	...	...	
13	Rungpore	13 5	13 5	14 8	...	...	...	9 6	9 6	10 8	13 5	14 8	15 3	...	...	...	
14	Bogra	15 0	15 0 Common Best 13 8	13 8	...	...	...	12 0	12 0	12 0	16 8	16 8	15 0	...	...	...	
15	Pubna	18 12	18 12	15 0	...	...	...	7 2	6 12	8 0	15 0	15 0	14 4	...	...	...	
16	Darjeeling	9 0	9 0	10 0	10 0	10 0	6 0	5 0	5 0	6 0	12 0	12 0	11 0	...	...	...	
17	Julpigoree	13 0	13 0	10 0	16 0	16 0	16 0	8 0	8 0	8 0	14 0	14 0	16 0	...	...	...	
Eastern Districts.																				
18	Dacca	13 6	13 0	13 0	16 0	16 0	16 0	12 0	13 0	12 0	13 0	15 0	14 0	...	...	...	
19	Furzedpore	14 0	14 0	16 0	18 0	17 0	18 0	9 0	9 0	8 0	14 0	13 0	12 0	...	...	...	
20	Backergunge	...	...	...	...	...	...	12 8	12 8	10 8	13 0	13 0	12 4	...	...	...	
21	Mymensingh	11 4	12 0	11 8	...	...	...	11 0	11 0	13 0	13 0	13 4	16 0	...	...	...	

A In subdivisions retail prices of salt per rupee are :—Culina 10 seers, Cutwa 10 seers 6 chittacks, and Kameegunge 10½ seers.

B At Rampore Haut retail price of salt 9 seers per rupee.

C In subdivisions retail prices of salt per rupee are :—Contal 8 seers, Tumlook 8 seers, and Ghatal 10½ seers.

C1 In subdivisions of Serampore and Jehanabad the retail price of salt is 10 seers per rupee.

D In subdivisions retail prices of salt per rupee are :—Baraset 9 seers, Baarhat 9 seers, Diamond Harbour (at Magrahat) 10 seers, Barrikpore 9 seers 2 chittacks, and Dum-Duis 10 seers.

E In subdivisions retail prices of salt per rupee are :—Koshtea 10 seers, Meherpore 9 seers, Choodanga 9 seers, and Ranaghat 9 seers 2 chittacks.

F In subdivisions retail prices of salt per rupee are :—Satkshira 9 seers 2 chittacks and Bagirhat 8 seers.

G In subdivisions retail prices of salt per rupee are :—Jhenida 9 seers, Magura 9½ seers, Narail 9½ seers, and Bongong 10 seers.

H In the subdivisions of Lalbagh, Jungipore, and Kandli the retail price of salt is 10 seers per rupee.

KANGNI OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	18 0	18 0	17 0	...	...	...	...	...
...	17 8	17 8	16 0	...	...	...	...	...
...	18 0	18 0	16 8	...	...	...	...	...
...	15 8	15 0	14 0	...	...	...	...	...
...	16 0	16 0	16 0	...	...	...	...	...
...	17 12	17 12	17 0	...	...	...	...	...

8 2	9 4	18 15	16 12	16 10	15 5
6 8	6 5	12 0	18 12	17 12	18 0
...	...	...	19 0	20 0	19 0
...	...	...	14 8	14 8	13 5
...	...	...	16 0	16 0	18 0
...	...	...	22 0	22 0	19 0
...	...	...	16 0	16 0	17 12
...	...	...	21 0	19 8	19 8
...	...	...	12 4	13 5	13 0
...	...	...	13 8	15 0	16 14
...	...	...	17 12	17 8	17 0
...	...	...	11 0	11 0	9 0
...	...	...	13 0	12 0	16 0

...	...	...	14 0	14 0	14 0
...	...	...	15 0	15 0	18 0
...	...	...	15 4	14 8	17 8
...	...	...	13 8	14 8	13 0

11906

SEERS OF 80 TOLAHS.

BAJRA OR CUMBU. (<i>Pennisetum typho- ideum</i> .)			MARUA OR RAGI. (<i>Eleusine Corocana</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...
...
...
...
...

...	...	...	26 0	26 0	...
...
...
...	...	...	23 1	23 1	17 54
...
...	...	...	22 0	22 0	20 0
...
...
...
...
...
...
...
...
...

...	...	...	26 0	27 0	20 0
...	...	...	38 12	36 0	26 8
...
...

11924

OF 40 SEERS.

MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN ITALIAN MILLET. (<i>Setaria italica</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
...	4 6 43 10 01 14 3	...	...
...
...
...
...
...
18 0	18 0	...	2 0 02 0 03 0 0	...	...
...
...
...
...

11946

JOWAR OR CHOLUM. (<i>Sorghum Vulgare.</i>)			RAJRA OR CUMBU. (<i>Pennisetum typhoidum.</i>)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
1 14 01	12 7 2	2 02	4 32	2 12	11 1
...
...
...
...
1 12 02	4 01	14 0
...
...
...

KANGNI OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

13	0	13	0	9	0
12	0	12	0	12	0
11	7	13	5	16	0
12	0	12	0	10	0

15 0	15 0	11 0	20 0	19 8	18 0
...	...	...	22 0	22 0	20 0
...	...	...	22 0	20 14	18 13
...	...	...	19 0	21 0	18 0
16 0	16 0	11 0	21 0	20 8	19 4
...	...	...	23 0	24 8	16 9
...	...	16 12	23 1	23 1	20 0
...	...	...	21 7	21 7	17 10
...	...	...	23 0	23 0	20 0
...	...	...	20 0	21 0	19 0
...	...	...	17 0	17 0	16 0

13	2	13	2	15	12
14	0	14	0	12	0

100	000	000	14	0	13	4	13	0
000	000	000	13	0	10	0	12	0
000	000	000	17	8	17	0	14	8

BAJRA OR CUMBU. (<i>Pennisetum typh.</i> <i>idenm.</i>)			MARUA OR RAGI. (<i>Eleusine Corocan.</i>)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

[illegible][illegible]

100	200	300	400	500	600
100	200	300	400	500	600
100	200	300	400	500	600
100	200	300	400	500	600

1190a

Head-quarter, Station Bazars of the Districts of Bengal on the 31st May 1890.

												WHOLESALE PRICES PER MAUND OF 40 SEERS.						DISTRICTS.
INDIAN-CORN OR MAIZE (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			SALT.						
Present return.	Next return.	Corresponding return of last year.	Present return.	Next return.	Corresponding return of last year.	Present return.	Next return.	Corresponding return of last year.	Present return.	Next return.	Corresponding return of last year.	Present return.	Next return.	Corresponding return of last year.				
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.				
...	19 0	18 0	19 0	100 0	100 0	107 0	10 0	10 0	9 14	3 11 0	3 11 0	3 11 0	Burdwan.			
25 0	29 0	19 0	20 8	21 0	16 0	280 0	280 0	280 0	10 0	10 0	10 0	3 15 0	3 15 0	3 15 0	Bankoora.			
...	13 8	13 8	...	160 0	160 0	160 0	10 8	10 8	10 0	3 10 0	3 10 0	3 14 0	Beerbhoom.			
...	13 0	13 0	14 0	160 0	160 0	160 0	10 0	10 0	10 4	3 14 0	3 14 0	3 14 0	Midnapore.			
...	11 0	11 0	13 0	120 0	120 0	120 0	9 0	9 0	9 0	3 11 0	3 11 0	3 11 0	Hooghly.			
...	13 0	13 0	12 12	100 0	100 0	100 0	10 0	10 0	10 8	3 11 0	3 11 0	3 10 0	Howrah.			
BENGAL.																		
Western Districts.																		
17 10	16 5	...	16 5	16 7	16 8	93 0	99 10	100 0	10 7	10 6	10 8	3 9 6	3 9 3	3 9 1	Calcutta.			
...	17 0	17 0	16 0	100 0	100 0	100 0	10 0	10 0	10 8	3 9 6	3 10 0	3 8 6	24-Pergunnahs.			
...	19 0	19 0	16 0	...	...	...	9 13	9 13	9 2	3 14 0	3 14 0	3 14 0	Nuddea.		
...	160 0	160 0	160 0	9 8	9 8	9 0	4 4 0	4 4 0	4 0 0	Khoolna.			
...	18 0	18 0	18 0	160 0	160 0	160 0	9 2	9 2	9 2	4 0 0	4 0 0	4 0 0	Jessore.			
...	16 0	16 0	18 0	200 0	200 0	200 0	10 12	11 0	9 0	3 12 0	3 12 0	3 14 0	Moorsbedabad.			
...	15 12	15 12	16 12	180 0	180 0	160 0	9 8	9 8	10 0	4 0 0	4 0 0	3 15 0	Dinapore.			
...	18 12	18 12	18 12	240 0	240 0	240 0	9 0	9 0	9 0	4 2 8	4 2 8	4 2 8	Rajshahye.			
...	10 5	12 4	13 0	100 0	100 0	120 0	9 6	9 6	9 6	4 4 0	4 4 0	4 4 0	Rungpore.			
...	90 0	90 0	90 0	9 0	9 0	9 0	4 4 0	4 4 0	4 2 8	Bogra.			
...	17 10	17 8	17 4	200 0	200 0	200 0	8 11	8 11	9 2	3 15 3	4 0 0	4 1 0	Pubna.			
12 0	13 0	18 0	8 0	8 0	...	120 0	120 0	120 0	8 0	8 0	7 0	5 0 0	5 0 0	5 0 0	Darjeeling.			
...	12 0	12 0	11 0	128 0	128 0	128 0	9 0	9 0	9 0	4 2 0	4 2 0	4 2 0	Julpigorce.			
Central Districts.																		
...	13 0	13 0	16 0	160 0	160 0	160 0	9 8	9 8	10 0	4 2 0	4 2 0	3 15 0	Dacca.			
15 0	15 0	...	10 0	10 0	10 0	120 0	120 0	120 0	8 8	8 8	9 0	4 12 0	4 12 0	4 0 0	Furzedpore.			
...	12 8	11 8	13 0	120 0	120 0	120 0	10 0	10 0	10 0	3 15 0	4 0 0	4 0 0	Backergunge.			
...	9 8	9 0	16 0	...	...	...	9 4	9 12	9 12	4 4 0	4 0 0	3 15 0	Mymensingh.		

I At Thakurgaon retail price of salt 8 seers per rupee.

J In subdivisions retail prices of salt per rupee are :—Nattore 9 seers and Nowgong seers 9 chittacks.

K In subdivisions retail prices of salt per rupee are :—Nilphamari 9 seers, Kurigram 8 seers, and Gaibanda 8 seers.

L At Serajgunge retail price of salt 9½ seers per rupee.

M At Siliguri wholesale price of salt 1½ seers per rupee.

N In the Alipore subdivision (at Fallacatta) retail price of salt 10½ seers per rupee.

O In subdivisions retail prices of salt per rupee are :—Mauckgunge 8 seers, Moonsheogunge 8 seers 14 chittacks, and Narain.

gunge 10 seers.

P In subdivisions retail prices of salt per rupee are :—Patuakhali 9 seers, Perozepore 9 seers, and Bhola 8 seers.

Q In subdivisions retail prices of salt per rupee are :—Kishoregunge 8 seers, Jamalpore 10 seers, Sherpore 8 seers, and Netrok.

8 seers.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the Head-quarter

Number.		DISTRICTS.	QUANTITIES PER RUPEE IN																	
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
Eastern Districts—concluded.																				
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
22	Chittagong	11 0	11 0	11 0	...	...	...	12 0	12 0	10 0	15 0	15 0	13 8	...	...	...	...	...
23	Noakholly	...	...	...	...	...	...	14 0	14 0	12 0	15 0	15 0	13 0	...	...	...	...	...
24	Tipperah	11 7	14 9 ²	12 0	...	...	...	10 10 ²	10 0	13 0	14 3	13 11	14 0	...	...	...	...	...
25	Chittagong Hill Tracts.	...	...	...	...	...	...	12 0	12 0	9 6	13 5	13 5	10 0	...	...	...	...	...
	Hill Tipperah	6 0	6 6	6 0	...	...	...	8 0	8 0	8 0	13 0	13 0	14 0	...	...	...	...	...
BEHAR.																				
26	Patna	17 0	Red. 17 0	...	23 12	23 0	20 0	10 8	10 0	10 8	17 0	16 14	13 8	22 0	18 0	21 2	...	...
27	Gya	15 8	White. 16 0	15 8	23 0	23 8	21 0	11 8	11 8	8 8	15 8	16 0	12 12	...	...	...	...	...
		16 0	15 8	15 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Shahabad	15 0	15 0	14 0	20 0	22 0	20 0	8 0	8 0	8 0	14 0	14 0	12 0	...	...	...	...	...
29	Durbhunga	16 8	14 4	14 4	19 12	20 14	18 4	12 0	9 11	10 4	16 8	15 6	13 4	...	...	...	...	...
30	Moruffepore	16 0	16 0	13 0	21 8	20 0	16 0	11 0	9 0	9 0	14 0	15 0	12 0	...	...	...	...	...
31	Sarun	16 0	15 8	13 8	21 8	21 4	19 0	8 8	8 8	8 8	14 4	14 4	12 2	...	...	...	...	...
32	Chumparun	16 0	16 12	13 0	24 0	25 0	18 0	8 8	8 8	7 0	15 0	16 4	11 0	...	...	...	...	...
33	Monghyr	17 13	17 13	16 4	23 1	23 1	21 0	15 12	15 12	10 8	17 13	17 13	11 9	...	...	...	...	...
34	Bhagulpore	16 11	17 11	15 7	22 11	22 11	17 10	Old. 10 1	Old. 10 1	10 2	12 10	13 4	12 10	...	...	...	...	...
								New. 13 14	New. 13 14	16 6	16 6	...	...	...	...	...	...	...
35	Purneah	18 0	18 0	16 0	...	...	...	15 0	16 0	13 0	17 0	18 0	16 0	...	...	...	...	...
36	Maldah	18 0	18 0	15 0	...	...	...	8 0	11 0	10 0	14 0	14 0	14 0	...	...	...	...	...
37	Sonthal Pergas.	13 0	13 0	12 2	...	...	...	13 0	13 0	12 0	16 0	16 0	14 0	...	...	...	...	...
ORISSA.																				
38	Cuttack	10 8	10 8	10 8	...	...	...	10 8	10 8	10 8	17 1	17 1	13 2	...	...	...	...	...
39	Pooree	10 8	11 13	11 13	...	...	...	17 1	17 1	13 0	21 0	21 0	15 12	...	...	...	...	...
40	Balasore	15 0	15 0	17 0	13 0	13 0	13 0	12 0	13 0	11 0	17 0	18 8	16 0	...	...	...	...	...
CHOTA NAGPORE.																				
South-West Frontier Agency.																				
41	Hazaribagh	14 8	14 0	13 0	13 0	13 0	17 0	9 0	9 0	8 0	16 0	16 0	13 8	...	...	...	...	...
42	Lohardugga	9 8	White. 8 8	12 8	24 0	24 0	13 0	13 8	14 0	11 12	Ordinary. 16 0	Ordinary. 16 8	13 0	...	...	...	...	...
		13 8	Red. 13 4	...	...	...	...	...	...	...	Coarse. 18 0	Coarse. 18 8	14 0	...	...	...	...	...
43	Singbhoom	12 0	10 0	14 0	14 0	10 0	16 0	16 0	16 0	14 0	23 0	20 0	22 0	...	...	...	...	...
44	Manbhoom	14 8	13 5	12 4	...	20 0	12 0	14 0	14 0	12 0	18 0	22 0	16 4	...	...	...	...	...

E At Cox's Bazar retail price of salt 8 seers per rupee.

S At Feni Haul retail price of salt 8 seers per rupee.

T In subdivisions retail prices of salt per rupee are :—Buxar 10 seers, Sasseram 10 seers, and Bhabuah 9 seers.

U In subdivisions retail prices of salt per rupee are :—Madhubani 10 seers and Samastipore 10½ seers.

V In Hajipore and Sitamarhi subdivisions retail price of salt 10 seers per rupee.

W At Bettiah retail price of salt 10 seers per rupee.

Station Bazars of the Districts of Bengal on the 31st May 1890—(concluded).

INDIAN-CORN OR MAIZE. (Zea Mays.)			ARRAR OR THUR. CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
...	...	...	...	...	...	110 0	110 0	100 0	10 8	10 8	9 0	3 12 0	3 12 0	4 0 0	Chittagong.
...	...	...	8 0	8 0	8 0	...	...	...	9 0	9 0	9 0	4 0 0	4 0 0	4 0 0	Noakholly.
...	...	...	8 14	8 6	9 0	...	...	...	9 11	9 11	9 0	4 2 0	4 2 0	4 4 0	Tipperah.
...	...	...	...	...	...	320 0	320 0	320 0	8 0	8 0	8 0	4 8 0	4 8 0	5 0 0	Chittagong Hill Tracts.
...	...	...	8 0	8 0	8 0	...	...	...	8 0	8 0	8 0	4 6 0	4 6 0	4 6 0	Hill Tipperah.
Eastern Districts—concluded.															
...	...	...	18 0	22 0	22 0	20 0	190 0	140 0	130 0	10 0	10 0	3 14 0	3 14 0	3 12 3	Patna.
...	...	...	21 0	21 0	16 0	160 0	160 0	200 0	9 2	9 2	9 2	4 2 0	4 2 0	4 2 0	Gya.
...	...	...	20 0	20 0	13 0	160 0	160 0	160 0	10 0	10 0	10 0	3 15 0	3 15 0	3 15 0	Shahabad.
19 8	19 12	16 0	20 14	19 12	18 8	140 0	160 0	160 0	11 0	10 0	11 6	3 8 0	3 12 0	3 8 0	Durbhanga.
18 6	18 0	16 0	20 0	20 0	18 0	160 0	160 0	160 0	10 0	10 0	10 0	4 0 0	4 0 0	3 12 0	Mozufferpore.
19 8	19 8	17 8	20 0	20 4	20 0	160 0	160 0	160 0	9 12	9 8	10 0	4 2 0	4 1 0	3 15 0	Sarun.
21 0	22 8	15 8	23 0	23 0	17 8	160 0	160 0	160 0	10 0	10 0	9 8	3 12 0	3 14 0	4 1 0	Chumparun.
16 13	21 0	9 8	19 1	23 1	16 12	147 0	147 0	147 0	9 15	9 12	9 8	3 13 6	3 14 6	3 12 6	Monghyr.
22 11	22 11	16 6	20 3	20 3	17 0	176 12	176 12	176 12	10 1	10 1	10 1	3 15 6	3 15 6	3 13 0	Bhagulpore.
...	...	...	15 0	13 0	...	130 0	130 0	...	9 0	9 0	...	4 7 0	4 7 0	...	Purneah.
...	...	...	...	...	...	140 0	140 0	160 0	9 0	9 0	9 0	4 3 0	4 2 0	4 2 0	Maldah.
20 0	20 0	17 0	21 0	21 0	21 0	200 0	200 0	200 0	9 0	9 0	9 0	4 0 0	4 0 0	4 3 0	Sonthal Pergas.
ORISSA.															
...	...	...	18 6	18 6	15 12	80 0	80 0	80 0	8 0	8 0	8 0	4 7 0	4 7 0	4 7 0	Cuttack.
...	...	...	13 2	13 2	14 7	80 0	80 0	80 0	10 8	10 8	10 8	3 8 0	3 8 0	3 8 0	Pooree.
...	...	...	...	...	...	160 0	160 0	160 0	10 0	10 0	10 0	3 14 0	3 14 0	4 0 0	Balasore.
CHOTA NAGPORE.															
South-West Frontier Agency															
20 0	22 0	14 8	23 0	123 0	115 0	320 0	320 0	320 0	8 0	8 0	8 0	4 4 0	4 4 0	4 8 0	Hazaribagh.
25 0	31 0	16	Fig. Small. 18 0; 19 0; 20 0; 21 12; 22 0; 23 14; 24 8			120 0	120 0	140 0	8 8	8 8	7 8	4 11 0	4 10 0	5 0 0	Lohardugga.
14 0	12 0	23 0	16 0	14 0	16 0	240 0	240 0	200 0	8 8	8 8	7 0	4 12 0	4 12 0	5 8 0	Singbhoor.
32 0	32 0	25 0	20 0	20 0	15 0	100 0	200 0	200 0	9 2	9 2	9 0	4 2 0	4 2 0	4 2 0	Manbhoor.

X In subdivisions retail prices of salt per rupee are :—Bengal 9½ seers and Jamui 9 seers.
 Y In subdivisions retail prices of salt per rupee are :—Kishengunge 8 seers and Arrarah (Baneeunge) 10 seers.
 Z In Khoorda subdivision retail price of salt 11 seers per rupee.
 Z1 At Bhadruck retail price of salt 8 seers per rupee.
 Z2 At Govindpore retail price of salt 9 seers per rupee.

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PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	2 11 8	2 11 6	2 13 11	2 0 9	2 0 11	2 2 7	4 7 0	4 3 6	4 2 11	2 12 1	2 12 4	2 13 2
2	Serajgunge ...	2 5 0	2 6 0	2 8 0	...	...	...	5 0 0	5 0 0	4 0 0	2 14 0	2 14 0	2 14 0
3	Dacca ...	3 0 0	3 0 0	3 0 0	2 7 0	2 7 0	1 8 0	3 4 0	3 0 0	3 4 0	3 0 0	2 10 0	2 12 0
4	Naraingunge ...	...	...	...	...	...	...	3 0 0	3 0 0	3 0 0	2 14 0	2 14 0	2 12 0
5	Chittagong ...	3 8 0	3 8 0	3 9 0	...	...	...	3 4 0	3 4 0	4 0 0	2 10 0	2 10 0	2 10 0
6	Patna ...	$\left\{ \begin{array}{l} 2 5 0 \\ 2 9 0 \end{array} \right.$	$\left\{ \begin{array}{l} \text{Red.} \\ \text{White.} \end{array} \right. \begin{array}{l} 2 5 0 \\ 2 9 0 \end{array}$	$\left\{ \begin{array}{l} ... \\ 2 8 0 \end{array} \right.$	$\left\{ \begin{array}{l} 1 10 8 \\ 1 11 0 \end{array} \right.$	$\left\{ \begin{array}{l} 1 11 0 \\ 1 15 0 \end{array} \right.$	$\left\{ \begin{array}{l} 3 12 0 \\ 3 15 0 \end{array} \right.$	$\left\{ \begin{array}{l} 3 12 0 \\ 3 15 0 \end{array} \right.$	$\left\{ \begin{array}{l} 2 5 6 \\ 2 4 0 \end{array} \right.$	$\left\{ \begin{array}{l} 2 4 0 \\ 2 15 0 \end{array} \right.$			
7	Balasore ...	2 8 0	2 8 0	2 4 0	3 0 0	3 0 0	3 0 0	3 4 0	3 0 0	3 5 0	2 4 0	2 0 0	2 4 0
8	Pooree ...	...	...	...	...	...	...	...	...	...	1 14 0	1 14 0	2 4 0
9	Cuttack ...	3 10 0	3 10 0	3 10 0	...	...	...	3 10 0	3 10 0	3 10 0	2 2 0	2 2 0	3 0 0

Calcutta,
The 10th June 1890.

in the undermentioned Marts of Bengal on the 31st May, 1890.

GRAM, CHANA, CHHOLA, KADALAY OR SUSAGA. (Cicer Arietinum.)			INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 2 1	2 2 3	2 5 8	2 0 5	2 2 4	...	2 3 1	2 3 5	2 3 0	0 5 9	0 5 6	0 5 6	3 9 6	3 9 3	3 9 1	Calcutta.
2 7 0	2 8 0	3 2 0	...	...	...	...	...	...	...	...	...	3 14 0	3 14 0	3 13 0	Serajgunge.
2 12 0	2 12 0	2 12 0	...	...	...	3 0 0	3 0 0	2 6 0	4 0 0	0 4 0	0 4 0	4 2 0	4 2 0	3 15 0	Dacca.
3 4 0	3 10 0	3 0 0	...	...	...	3 14 0	3 8 0	3 2 0	0 8 0	0 8 0	0 10 0	3 12 0	3 12 0	3 12 0	Naraingunge.
3 0 0	3 0 0	4 8 0	...	...	...	...	...	...	0 5 4	0 5 4	0 7 0	3 12 0	3 12 0	4 0 0	Chittagong.
1 12 0	1 13 6	1 14 0	...	...	2 3 0	1 12 0	1 12 6	1 15 0	0 5 0	0 5 0	0 5 0	3 14 0	...	3 12 3	Patna.
2 12 0	2 12 0	3 0 0	...	...	...	...	...	...	0 4 6	0 4 6	0 5 0	3 14 0	3 14 0	4 0 0	Balasore.
...	3 8 0	3 8 0	3 8 0	Pooree.
2 10 0	2 10 0	2 0 0	2 2 0	2 2 0	2 5 0	0 8 0	0 8 0	0 8 0	4 7 0	4 7 0	4 7 0	Cuttack.

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P. NOLAN,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.															
			AIR PRESSURE.					TEMPERATURE.					HUMIDITY.		CLOUD.			
			Highest, 8 A.M., barometer reading of month.	Lowest, 8 A.M., barometer reading of month.	Mean, 8 A.M., for month.	Mean reduced to sea-level.	Variation from normal mean.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M., humidity.	Variation from normal mean.	Mean cloud amount, 8 A.M.	Variation from normal mean, 8 A.M.	Rainfall.
ORISSA.	Pooree	Pooree	29.865	29.563	29.688	29.700	—	92.2	73.1	90.6	81.0	86.1	—	84	—	5.0	—	1.70
	Gopalnora	Gopalnora	29.842	29.545	29.673	29.685	—0.42	90.2	75.8	88.7	81.4	85.1	+0.9	84	—	1.7	—	1.25
	False Point	False Point	29.847	29.566	29.688	29.700	—0.40	92.5	70.1	90.0	78.3	84.6	—0.6	79	—7	5.6	+0.0	2.35
	Cuttack	Cuttack	29.789	29.509	29.623	29.702	—0.08	111.4	72.8	103.6	80.7	92.1	+1.0	69	+2	5.1	+1.5	2.31
SOUTH-WEST BENGAL.	Balasore	Balasore	29.833	29.522	29.644	29.702	—0.30	104.5	68.9	96.3	77.8	87.0	+0.7	76	—	0.5	—	6.53
	South-West Midnapore and South 24-Pergunnahs	Saugor Island	29.882	29.550	29.686	29.712	—0.34	96.2	71.0	93.0	80.1	86.6	+0.7	80	—5	6.7	+0.8	5.00
	Midnapore	Midnapore	29.741	29.420	29.533	29.703	—0.47	110.4	69.2	101.0	77.8	89.4	+1.1	75	—	3.2	—	7.71
	24-Pergunnahs, Howrah, and Hooghly.	Calcutta	29.805	29.540	29.689	29.711	—0.30	105.4	67.2	95.3	77.2	86.4	+1.3	78	0	3.9	—0.0	5.96
SOUTH-WEST BENGAL.	Burdwan	Burdwan	29.758	29.448	29.598	29.693	—0.40	109.2	71.4	100.0	78.8	89.4	+2.4	73	0	4.7	+0.9	2.90
	Bankoora	Bankoora	29.353	29.244	29.380	29.683	—0.22	110.1	67.6	100.4	77.7	89.1	—	71	—	3.0	—	4.57
	West Burdwan Beerbhoom	Ranigunge	29.574	29.315	29.391	29.724	—0.01	111.5	71.9	101.4	78.5	89.9	+1.0	71	—	2.7	—	2.48
	Moorsheadabad	Berhampore	29.798	29.457	29.635	29.703	—0.39	108.2	69.2	96.8	76.8	86.8	+1.1	84	+9	5.7	+0.4	1.76
SOUTH-WEST BENGAL.	Nuddea	Krishnagore	29.827	29.497	29.660	29.708	—0.21	106.8	70.3	98.0	76.9	87.4	+1.5	77	—	5.0	—	5.24
	Jessore and Khoolna	Jessore	29.800	29.516	29.658	29.721	—0.34	103.6	70.9	95.3	77.8	86.5	+1.2	86	—	6.0	—0.1	5.28
	Chittagong	Chittagong	29.823	29.504	29.673	29.703	—0.47	94.7	71.0	90.4	76.7	85.5	+2.0	80	—3	5.7	—0.5	2.63
	Chittagong Hill Tracts	Demagri	Not received.															
SOUTH-WEST BENGAL.	Backergunge	Barrisal	29.851	29.556	29.724	29.736	—0.28	97.3	73.9	91.3	77.9	84.8	+2.0	81	—	4.6	—	6.78
	Noakholly	Noakholly	29.874	29.575	29.721	29.765	+0.05	92.5	68.4	89.0	76.1	82.6	+0.7	82	—	1.2	—	11.21
	Furreedpore	Furreedpore	29.881	29.531	29.704	29.743	—0.25	100.5	69.9	90.8	76.1	85.4	+1.3	85	—	4.8	—	5.07
	Dacca	Dacca	29.869	29.537	29.715	29.738	—0.32	97.1	68.7	90.9	74.9	82.9	—0.4	87	+3	3.4	—2.5	13.27
SOUTH-WEST BENGAL.	Tipperah	Commillah	29.879	29.546	29.716	29.752	—0.25	98.8	68.3	90.7	74.7	81.7	+0.3	82	—	5.2	—	9.04
	Mymensingh	Mymensingh	29.868	29.509	29.694	29.762	—0.35	96.2	68.1	87.6	74.8	81.3	+0.9	88	—	6.2	—	10.02
	Bogra	Bogra	29.820	29.476	29.648	29.715	—0.06	104.3	68.1	99.2	74.9	82.7	—0.7	82	—	5.4	—	4.33
	Pubna	Serajgunge	29.846	29.521	29.674	29.721	—0.39	98.6	68.4	90.3	74.9	82.6	+0.5	85	—	5.6	—	10.77
SOUTH-WEST BENGAL.	Rajshahye	Rampore Beaulah.	29.812	29.456	29.647	29.717	—0.23	103.8	69.2	93.0	76.1	84.6	+0.6	81	—	3.2	—	3.73
	Maldah	Maldah																
	Dinapore	Dinapore	29.765	29.418	29.609	29.730	—0.41	98.1	60.2	89.3	74.0	81.6	—0.0	82	—	5.3	—	8.02
	Rungpore	Rungpore	29.805	29.437	29.629	29.755	—0.16	94.8	67.7	89.1	72.8	81.0	+0.3	85	—	2.9	—	9.49
SOUTH-WEST BENGAL.	Julpigoree and Cooch Behar.	Julpigoree	29.619	29.280	29.452	29.742	—0.40	94.4	65.1	88.6	?	?	?	81	—	3.0	—	6.92
	Darjeeling Hill Tracts	Darjeeling	29.602	29.215	29.411	—	—	69.1	46.2	61.8	52.0	56.9	+0.4	93	+7	8.3	+0.8	6.11
	Purneah and North Bhagulpore.	Purneah	29.773	29.415	29.599	29.727	—0.15	108.8	66.0	94.6	74.7	84.7	+0.7	78	0	4.3	+0.5	4.95
	Mozufferpore	Mozufferpore	29.700	29.305	29.498	29.678	—	107.4	67.7	97.2	77.1	87.2	?	75	—	1.7	—	2.35
SOUTH-WEST BENGAL.	Durbhunga	Durbhunga	29.731	29.363	29.541	29.708	—0.25	105.9	?	97.5	?	?	?	75	—	2.6	+0.2	2.30
	Chumparun	Motihari	29.659	29.289	29.481	29.709	—0.08	106.2	66.8	96.7	74.6	85.6	+0.7	60	—	2.0	—	6.55
	Sarun	Chupra	29.683	29.316	29.485	29.680	—0.31	106.3	67.8	96.5	76.5	87.5	—0.2	67	—	1.4	—	2.06
	Shahabad	Dehree	29.542	29.231	29.329	29.678	—0.08	111.4	71.0	105.6	78.5	92.0	+2.6	40	—	9.4	—	Nil
SOUTH-WEST BENGAL.		Buxar	29.619	29.297	29.459	29.680	—0.15	107.9	69.8	102.1	78.0	90.1	+0.6	52	—	1.8	—	0.65
		Arrah	29.625	29.321	29.475	29.679	—0.22	110.4	69.7	101.4	77.9	89.6	—0.4	61	—	1.8	—	1.03
	Gya	Gya	29.474	29.196	29.360	29.674	—0.25	111.6	68.2	103.5	80.8	93.1	+2.2	62	+6	3.0	+0.4	0.91
	Patna	Bankipore	29.712	29.322	29.494	29.678	—0.36	112.1	68.2	99.8	76.7	85.2	—0.2	69	+8	1.9	—1.5	2.29
SOUTH-WEST BENGAL.	South Bhagulpore and Monghyr.	Bhagulpore	29.717	29.348	29.530	29.693	—0.16	109.3	67.6	96.0	76.0	86.0	+0.3	76	—	3.5	—	4.55
	South Bhagulpore and Monghyr.	Bhagulpore																
	South Bhagulpore and Monghyr.	Bhagulpore																
	South Bhagulpore and Monghyr.	Bhagulpore																
SOUTH-WEST BENGAL.	South Bhagulpore and Monghyr.	Naya Doomka	27.814	27.602	27.699	29.077	—0.25	106.0	63.3	99.3	76.4	87.4	+1.4	51	+3	2.6	+0.1	1.06
	Hazaribagh	Hazaribagh	27.696	27.486	27.586	29.080	—0.22	106.0	62.9	98.3	73.7	86.0	+0.3	51	—	2.8	—	2.08
	Lohardugga Maaboom	Ranchee	29.134	28.806	28.920	29.081	—0.18	111.3	66.8	103.3	79.4	90.8	?	64	—	3.0	—	4.06
	Singbhoom	Chyebassa	29.656	29.284	29.458	29.705	—0.03	95.6	68.8	84.2	72.4	89.8	+1.3	88	—	8.1	0	3.78
SOUTH-WEST BENGAL.		Sibasgar	29.822	29.451	29.636	29.754	—0.13	92.7	68.8	86.6	73.9	89.3	+0.7	87	+1	6.2	+0.9	10.39
		Dhubri	29.642	29.475	29.609	29.776	—0.09	102.0	62.4	89.5	72.9	81.2	+1.2	85	+1	8.0	+1.1	11.16
SOUTH-WEST BENGAL.		Nilchar																

* Mean of 27 days.

† " " " "

‡ " " " "

§ " " " "

Bengal for the month of May 1890.

DISTRICT OBSERVATIONS.											Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
RAINFALL.													
Of month.					Since 15th May 1890.								
Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.				
2.13	3.60	-0.87	5.3	5.7	2.10	1.71	+0.39	4.8	3.1	Pooree Gopalpore False Point	Pooree	ORISSA.	
3.59	3.51	-0.01	6.4	6.5	3.09	2.07	+1.02	5.6	4.1	Cuttack	Cuttack		
5.12	4.75	+0.37	10.2	8.3	4.23	2.57	+1.66	8.8	4.2	Balasore	Balasore		
7.42	4.80	+2.62	10.0	8.2	6.97	2.25	+4.72	9.0	4.1	Saugor Island	South-West Midnapore and South 24-Pergunnahs.		
6.22	5.19	+1.53	9.0	8.0	6.20	2.13	+4.07	8.0	4.0	Midnapore	Midnapore	SOUTH-WEST BENGAL.	
5.05	5.06	-0.01	8.8	9.7	4.61	2.63	+2.01	7.4	4.9	Calcutta	24-Pergunnahs, Howrah, and Hooghly.		
5.16	5.05	-1.89	6.7	8.3	2.83	2.62	+0.21	5.3	4.3	Burdwan	Burdwan		
4.05	3.53	+0.22	6.3	7.4	4.05	2.11	+1.94	6.2	4.1	Bankoora	Bankoora		
1.87	3.41	-1.54	5.8	8.1	1.77	2.90	-0.23	4.8	4.4	Ranigunge	West Burdwan and Beerbhoom.	EAST BENGAL.	
3.30	5.26	-1.96	5.5	8.3	2.58	3.15	-0.57	4.0	4.3	Berhampore	Moorsheadabad		
4.50	6.37	-1.87	9.0	9.2	3.79	3.31	+0.48	6.8	5.2	Krishnagore	Nuddea		
6.11	6.79	-0.68	9.2	10.6	4.66	3.37	+1.29	6.6	5.5	Jessore	Jessore and Khoolna		
4.92	10.00	-5.08	9.5	12.2	4.49	5.28	-0.79	7.5	5.9	Chittagong	Chittagong	EAST BENGAL.	
5.63	9.53	-0.90	10.5	13.3	6.09	4.26	+1.83	7.5	6.4	Demagiri	Chittagong Hill Tracts		
6.38	7.06	-1.28	7.8	12.4	6.07	3.89	+3.18	7.0	6.2	Barrisal	Backergunge		
10.65	10.30	+0.35	11.5	13.2	8.01	4.77	+3.24	8.0	6.4	Noakholly	Noakholly		
	8.59		11.7	11.8		4.24		8.3	5.3	Furzedpore	Furzedpore	EAST BENGAL.	
11.29	8.96	+2.43	12.5	12.6	8.67	4.65	+4.02	8.8	6.0	Dacca	Dacca		
10.42	10.13	+0.29	14.5	13.2	5.95	4.25	+1.70	8.0	6.4	Commillah	Tipperah		
11.73	9.70	+1.63	12.0	13.0	7.56	4.97	+2.59	8.0	6.5	Mymensingh	Mymensingh		
6.44	7.79	-1.35	11.0	10.9	4.38	4.60	-0.22	7.5	5.7	Bogra	Bogra	NORTH BENGAL.	
7.97	7.11	+0.86	10.0	11.0	6.16	3.80	+2.36	7.0	5.6	Serajgunge	Pubna		
5.72	5.87	-0.15	7.3	8.7	4.70	3.51	+1.19	5.3	5.0	Rampore Beau-leah.	Rajshahye		
4.63	4.49	+0.14	7.5	7.5	2.42	2.79	-0.37	5.0	4.0	Maldah	Maldah		
6.14	6.13	+0.04	8.8	8.0	3.48	4.17	-0.69	5.6	4.3	Dinapore	Dinapore	NORTH BENGAL.	
5.92	11.23	-2.31	15.5	12.5	4.47	7.40	-2.93	9.0	6.7	Rangpore	Rangpore		
7.67	13.10	-5.43	17.8	15.5	3.55	8.75	-5.20	10.6	8.7	Julpigoree	Julpigoree and Cooch Behar.		
7.40	10.85	-3.45	18.0	10.5	4.43	6.78	-2.35	10.5	9.0	Darjeeling	Darjeeling Hill Tracts.		
3.77	4.94	-1.17	6.8	6.7	2.19	3.05	-0.86	4.5	3.2	Purneah	Purneah and North Bhagulpore.	NORTH BENGAL.	
2.80	2.46	+0.14	4.7	4.5	1.78	1.30	+0.48	3.0	2.1	Mozufferpore	Mozufferpore		
2.31	2.03	-0.32	4.7	4.5	1.22	1.36	-0.14	3.0	2.0	Durbhunga	Durbhunga		
4.35	2.59	+1.76	5.3	4.8	3.72	1.35	+2.37	4.0	2.3	Motihari	Chumpran		
2.09	1.90	+0.09	2.9	3.4	1.67	1.12	+0.55	1.7	1.6	Chupra	Sarun	SOUTH BENGAL.	
0.71	1.32	-0.61	2.2	2.9	0.59	0.26	-0.27	1.2	1.6	Dehree Buxar Arrah	Shahabad		
1.20	1.77	-0.57	2.5	3.3	0.91	1.26	-0.35	1.8	1.9	Gya	Gya		
2.41	2.09	+0.32	3.3	3.5	1.30	1.45	-0.15	1.8	2.0	Bankipore	Patna		
2.35	2.45	-0.10	5.0	4.3	2.12	1.62	+0.50	3.6	2.2	Bhagulpore	South Bhagulpore and Moughnyr.	CHUTIA NAGPUR.	
2.31	3.84	-0.53	6.6	6.2	2.37	2.42	-0.05	5.0	3.3	Naya Doonka	Southal Pergunnahs		
2.94	3.46	-1.32	4.0	5.2	0.64	1.36	-0.92	3.0	3.0	Hazaribagh	Hazaribagh		
1.83	2.37	-0.54	5.0	5.5	1.35	1.74	-0.39	4.3	2.4	Ranchoe	Lohardugga		
1.94	2.77	-0.83	5.0	6.0	1.49	1.66	-0.17	4.0	2.6		Manbhoom	ASSAM.	
4.25	4.17	+0.08	8.0	6.8	3.09	2.37	+0.62	7.0	4.9	Ohyabassa	Singbloom		
										Sibsagar			
										Dhubri			
										Silchar			

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SOUTH WEST BENGAL.	POOREE	Poorce	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.01	0.33	0.90	...	...	...
		Khurda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.40	...	...	...	...
		Bampur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.08	...	...	0.23	...	...
		Pale Point	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.03	0.12	0.00	...	1.17	...
		Gop	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	CUTTACK	Saipora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.01	...	0.02	...	...	...
		Pipli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jaratinsingore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.35	...	...	0.20	...	0.08
		Banki	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.30	...	...	...	0.01
		Cuttack	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.12	0.46	...	1.62	...	0.23
	BALASORE	Kendrapara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.77	1.07	...	...	...	...
		Jaipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.45	1.40	...	...	...	...
		Dharmasalla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.40	0.00	...	0.84	...	...
		Satipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chandbali	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.80	0.13	1.05	0.04	0.25	0.20
SOUTH WEST BENGAL.	MIDNAPORE	Bhuddruck	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.50	0.47	0.20	...	0.35	...
		Sorah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.30	0.40	...	...	0.30	...
		Balasore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.77	0.12	...	...	0.03	...
		Jellapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.22	0.80	...	...	1.90	...
		Baripodah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.15	1.00	...	0.28	0.16	...
	24-Pergunnah	Contai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.18	0.28	...	...	1.08	...
		Sangor Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.08	0.21	0.40	...	2.08	...
		Tamluk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.20	0.60	0.90	0.70	1.70	...
		Midnapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.50	0.81	0.25	0.52	1.00	...
		Ghatal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.25	1.30	0.76	...	0.20	...
	Howrah	Kukrahaty	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.45	0.34	1.40	...	0.58	...
		Garbeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.55	...	...	0.16	...
		Diamond Harbour	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.09	0.35	1.15	0.05	...	0.70
		Canning Town	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.43	0.12	0.54	0.03	...	0.21
		Alipore Jail	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.51	0.03	1.36	0.02	...	0.16
SOUTH WEST BENGAL.	HOOGHLY	Barrackpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.15	0.95	...	...	0.05	...
		Dum-Dum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.32	0.21	0.82	0.24	0.38	...
		Baraset	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.83	1.13	...	...	1.04	...
		Huseerhat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.23	...	2.60	...	1.47	...
		Howrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.01	0.06	0.14	0.55	0.27	0.01
	BURDWAN	Moheerka (Golobheria)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.63	0.37	...	...	...	...
		Serampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.18	0.02	...	...	0.56	...
		Hooghly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.03	...	0.30	...	1.40	...
		Jehanabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.09	1.10	...	0.04	...	1.47
		Burdwan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH WEST BENGAL.	BANKPORE	Coina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.17	0.02	...	0.13	...	0.19
		Hardwan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.30
		Cutwa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.77
		Race-kunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Mankur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	BEERBHOM	Bankoora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.25	...	...	...	0.40	...
		Bishenpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.23	...	...	0.22	...	...
		Maliara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.02	...	0.42	...
		Khatra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.50	...	...	...	0.61	...
		Indas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.24	...	...	...	0.10	...
SOUTH WEST BENGAL.	NUDDA	Kotalpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.45	...	...	...	0.40	...
		Anda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.00	...	...	...	1.11	...
		Gangajalghati	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.22	0.37	...	...	0.15	...
		Raipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Schamukhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.04	...	...	...
	KHOOLNA	Rh. Soory	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.06	0.01	...	...	0.13	...
		Hetampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Rampore Hant	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.20	...	...	...	0.26	...
		Holpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.77	...
		Murari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.19	...	...	...	...	...
SOUTH WEST BENGAL.	JESSORE	Nudda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.20	...
		Ranaghat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.07	...	...	...	...	...
		Kishnaghat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.09	...	...	1.20	...	0.10
		Choondanga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.06	...	...	0.10	...	...
		Meherpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.36	0.09	0.10	...	0.36	...
	MOORSBEDABAD	Kooshtea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.14	...	...
		Satkira	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.20	0.02	0.06	0.34	1.10	0.19
		Bagirhat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.44	...	...
		Khoorna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.35	0.36	1.41	0.12	...	...
		Nakipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.45	0.28	0.67	0.45	1.80	...
SOUTH WEST BENGAL.	CHITTAGONG	Rampal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.43	0.41	...	0.80	...	1.50
		Jessore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Shenidah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.14	...	1.40	...	0.80	1.33
		Magorah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.44	...	0.82	...	...	...
		Bongong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.59	1.34	0.13	...	0.30	...
	CHITTAGONG HILL TRACTS.	Moorsbedabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.04	...	...	...	0.83	...
		Kandi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.08	...	...	...	...	...
		Berhampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.05	0.19	...	...	0.68	...
		Lalbarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.09	...	0.28	...	...	...
		Asimgunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.45	...	...	...
SOUTH WEST BENGAL.	CHITTAGONG	Jungipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.40	0.01	...	...	...	...
		Lalgola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.40	1.02	...	...	3.00	...
		Jingunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.04	2.55	...	...	...	...
		Akhrigunj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.16	0.55	...	...	0.14	...

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1890 up to 31st May 1890.	Average rainfall from 1st January up to 31st May.	Station.	District.	Meteorological division.
...	...	1'47	...	...	...	0'39	0'61	...	...	0'04	5	5'3	1'84	2'65	0'90	3'24	5'45	Pooree	Pooree	Orissa.
...	...	...	...	...	...	0'36	0'91	...	...	...	5	7'4	3'84	5'34	1'47	8'27	5'81	Khurdah.	...	...
...	...	...	...	...	...	...	0'19	...	...	...	3	4'0	0'50	1'93	0'25	5'08	4'60	Bampur.	...	...
...	...	...	...	...	0'09	0'75	...	0'10	0'03	...	8	6'1	2'35	3'63	1'17	3'07	8'44	Palis Point.	...	...
...	...	...	...	...	...	...	...	...	...	...	?	?	?	?	?	?	?	Satpara.	...	...
...	...	...	...	...	...	...	...	...	...	...	?	?	?	?	?	?	?	Pipli.	...	...
0'10	...	0'57	...	...	...	...	0'44	1'29	...	0'30	3	4'9	1'05	2'76	0'55	3'27	5'25	Jagatsingapore	Cuttack.	...
0'02	...	0'29	...	...	...	...	0'40	...	...	0'45	8	6'0	3'15	3'99	1'29	7'39	5'13	Banki.	...	...
...	...	0'70	...	...	...	0'09	0'23	...	0'08	...	5	5'3	3'83	3'27	2'00	6'23	6'84	Cuttack.	...	...
1'71	...	2'01	...	...	...	0'13	0'29	0'18	...	...	8	6'1	3'75	3'04	1'61	4'32	7'04	Kondrapata.	...	...
2'00	...	1'29	...	...	...	...	...	...	...	...	8	7'4	6'09	4'21	2'05	8'29	9'03	Jajpore.	...	...
...	...	...	...	...	...	0'16	0'07	...	...	0'35	4	?	3'05	?	2'09	6'83	?	Dharmasala.	...	...
...	...	...	...	...	...	...	...	...	...	...	6	?	1'91	?	0'84	3'12	?	Salipore.	...	...
...	0'21	0'37	...	...	...	0'08	0'20	0'21	0'20	0'23	14	7'3	4'04	4'39	1'03	5'11	8'39	Chandbali.	Balasore.	...
0'80	0'39	0'10	0'10	...	...	0'25	0'30	0'30	0'29	0'29	13	8'2	4'57	5'17	0'80	8'62	10'23	Bhuddruck.	...	...
0'20	0'09	1'20	...	...	...	1'30	...	...	...	...	8	8'2	5'29	4'09	1'39	7'56	9'54	Sorah.	...	...
0'44	...	0'61	...	...	...	0'18	0'77	0'33	2'83	...	9	9'7	6'29	4'97	2'83	10'47	11'67	Balasore.	...	...
0'03	...	...	...	...	...	0'80	0'25	0'49	1'30	...	7	7'0	5'36	3'64	1'90	19'83	7'78	Jellsore.	...	...
...	...	...	...	...	...	0'75	0'65	0'60	...	...	8	9'0	4'72	4'89	1'15	6'90	8'45	Baripadah.	...	...
3'19	2'13	...	...	...	...	0'38	0'49	1'87	0'25	0'21	10	6'5	13'06	4'42	3'19	12'46	8'79	Contai.	Midnapore	South-West Bengal.
0'03	1'68	...	...	...	...	0'02	0'46	0'02	0'08	...	10	8'7	5'86	4'47	2'08	6'61	8'64	Saugor Island.	...	...
...	2' 0	...	...	...	...	0'30	1'80	...	0'49	...	9	6'5	9'29	4'80	2'44	10'40	9'25	Tumlook.	...	...
0'90	...	...	...	...	...	0'11	...	...	1'30	...	9	6'7	5'81	5'32	1'30	7'88	9'63	Midnapore.	...	...
0'13	0'15	...	...	...	...	0'67	0'71	...	0'24	...	9	8'8	4'54	5'14	1'39	6'70	9'97	Ghatol.	...	...
0'49	1'65	...	...	...	...	...	0'56	...	0'19	...	7	?	5'40	?	1'65	6'52	?	Kukrahaty.	...	...
0'54	0'09	...	...	...	...	0'55	...	...	0'85	...	7	?	3'39	3'09						

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
EAST BENGAL —contd.	Rackergunge...	Patuakhali...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.80	...	...	...	...
		Paroepore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.94	...	...	...	...
		Burrisal...	0.06	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.17	0.13	0.25	...	1.15
		Bhola...	...	0.10	...	...	...	...	...	...	...	...	...	...	...	1.00	1.80	0.30	0.10	...	...	0.40
	Noakholly ...	Gournadi...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.20	...	0.06	1.11	...	0.79
		Bauphal...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Noakholly...	...	0.22	...	...	...	...	...	...	...	...	...	1.08	0.60	0.70	...	0.20	0.00	...	...	...
		Fenny...	...	0.43	...	...	...	...	...	...	...	...	...	...	0.15	1.12	...	0.55	1.25	0.20	...	...
	Farreedpore...	Harishpore...	...	...	...	...	...	...	...	...	...	...	2.28	2.23	...	0.90	0.85	0.55	...	0.45	...	...
		Ramganj...	1.04	...	...	...	...	...	...	...	...	...	...	0.50	...	1.01	0.12	2.72	...	...	0.34	...
		Madaripore...	...	0.70	...	...	...	...	...	...	...	...	...	0.15	...	...	...	0.34	0.54	...	...	0.29
		Furcedpore...	0.82	...	...	...	...	...	...	...	...	...	...	0.80	1.20	0.14	0.52	0.50	...	...	0.20	0.18
	Dacca ...	Goalundo...	0.14	...	...	...	...	...	...	...	...	...	...	...	0.30	1.07	...	0.57	0.40	0.06	...	...
		Munshigunge...	1.05	0.02	...	...	...	...	...	...	...	...	...	0.28	...	0.33	...	0.50	0.03	...	...	...
		Dacca...	1.03	...	...	...	...	...	...	...	...	...	...	1.12	2.38	0.18	...	0.12	1.21	...	...	0.22
		Narainkunge...	1.54	0.11	...	...	...	...	...	...	...	...	...	0.66	0.21	0.09	0.11	0.16	1.09	...	...	0.03
	Hill Tipperah	Manickkunge...	0.00	0.05	...	...	...	...	...	...	...	...	...	...	0.27	0.10	0.20	0.80	0.20	...	...	...
		Joydebpore...	0.96	...	0.36	...	...	...	...	...	...	...	...	0.02	1.86	0.06	0.46	0.59	0.34	...	...	1.13
		Agartola...	0.80	...	1.35	1.28	...	...	...	...	...	...	0.65	...	...	0.45	0.85	0.38	0.30	...	...	0.21
		Tipperah...	0.04	0.76	...	0.03	...	...	...	...	...	...	...	1.10	1.63	0.37	0.14	1.15	0.38	...	...	...
	Mymensingh...	Comilla...	...	1.10	...	...	...	...	...	...	...	...	...	0.15	0.35	0.83	0.40	0.45	0.23	...	0.50	...
		Chandpore...	...	...	...	3.56	0.05	...	...	...	...	...	0.04	0.06	0.78	0.50	0.13	0.49	0.78	...	...	0.31
		Ramchandrapore...	0.10	0.39	0.41	0.61	...	...	...	...	...	...	...	1.64	1.40	...	0.91	0.10	0.11	...	...	0.47
		Nasirnagar...	...	...	4.30	...	...	...	...	...	...	...	...	...	2.20	1.20	...	1.30	1.15	...	...	0.10
Mymensingh...	Dandkandi...	...	...	...	...	...	...	...	...	...	...	...	1.52	0.75	...	...	0.42	0.71	...	...	0.07	
	Kasba...	1.43	0.07	2.40	...	...	...	...	...	...	...	...	0.42	1.20	...	1.30	...	0.90	...	...	...
	Laksham...	...	1.75	...	...	...	...	...	...	...	...	...	0.70	0.20	...	1.05	...	0.15	...	...	...
	Kishoregunge...	...	0.15	0.39	0.54	...	...	...	...	...	...	...	...	2.82	0.11	...	1.20	0.09	...	...	1.75	
Mymensingh...	Atia (Tungail)	...	...	2.08	...	...	...	...	...	...	...	...	...	1.05	...	...	2.31	0.32	...	...	0.17	
	Mymensingh...	1.40	0.08	...	...	...	...	...	...	...	...	...	0.45	2.00	0.39	0.08	1.00	0.16	...	...	0.80	
	Jamulpore...	...	3.21	...	...	...	...	...	...	...	...	...	...	0.40	...	0.09	0.40	0.22	...	...	0.07	
	Netrokona...	0.15	1.14	0.09	...	...	...	...	...	...	...	...	...	...	1.62	...	0.43	0.11	...	...	1.42	
Mymensingh...	Subornakhali...	...	...	1.49	...	...	...	...	...	...	...	...	...	...	...	2.50	0.13	0.40	...	...	...
	Durgapore...	...	...	0.65	5.10	0.45	...	...	...	...	...	...	...	0.55	0.54	0.20	...	0.20	...	...	1.58	
	Sherpore Town...	...	...	2.12	...	...	...	...	...	...	...	...	...	...	1.05	...	0.80	...	...	...	0.60	
	Dewanganj...	0.30	1.60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.90	
EAST BENGAL	Pabna ...	Pabna...	...	...	0.25	...	...	...	...	...	...	...	...	...	0.96	0.10	0.50	0.03	...	...	0.26	...
		Serajunge...	...	...	1.82	...	...	...	...	...	...	...	...	...	0.48	...	1.82	1.46	...	...	...	0.25
		Sherpore...	...	...	0.31	0.07	...	...	...	...	...	...	...	...	0.25	0.41	1.15	0.10	...	...	...	...
		Nowkhilla...	...	...	3.24	...	...	...	...	...	...	...	...	...	0.35	0.49	1.23	0.03	...	...	...	1.33
	Bogra ...	Bogra...	...	...	0.09	...	...	...	...	...	...	...	...	...	0.35	0.49	1.23	0.03	...	...	...	0.11
		Panchbibi...	...	...	0.68	...	...	...	...	...	...	...	...	...	1.07	0.27	1.97	0.02	...	...	...	0.76
		Beaulah...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.21	0.42	...	...	...	1.00	...
		Natore...	...	0.35	...	...	...	...	...	...	...	...	...	...	...	0.20	2.03	...	...	...	0.12	...
	Rajshahi...	Nagaon...	...	0.16	...	1.52	...	...	...	...	...	...	...	...	...	0.62	...	...	...	...	...	0.97
		Lalpor...	...	0.18	...	...	...	...	...	...	...	...	...	...	...	0.38	1.50	...	...	...	...	...
		Manda...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Maldah...	...	...	...	...	...	...	...	...	...	...	...	...	1.40	0.07	1.40	...	...	...	...	...
	Maldah ...	Maldah...	...	...	...	...	...	...	...	...	...	...	...	...	1.85	0.28	0.14	...	...	...	...	0.43
		Chanchal...	...	...	0.82	...	...	...	...	...	...	...	...	...	1.30	...	0.75	0.35	...	...	...	0.25
		Gajol...	...	...	0.12	...	...	...	...	...	...	...	...	...	...	0.88	3.49	...	...	...	...	0.50
		Subganj...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dinapore ...	Mohandepore...	...	0.22	...	...	...	...	...	...	...	...	...	...	0.61	0.97	1.30	...	...	...	...	0.54
		Churaimon...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.80	0.28	0.31	...	...	...	0.15
		Raigunge...	...	...	...	0.34	...	...	...	...	...	...	...	...	...	1.17	0.15	1.20	...	...	...	0.33
		Dinapore...	...	0.24	1.06	...	0.60	...	...	...	...	...	...	...	...	1.16	0.09	2.21	0.43	...	...	0.37
	Rangpore ...	Raioorhat...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.82	0.41	1.70	0.29	...	...	0.31
		Thakurgaon...	...	...	1.27	...	2.39	0.85	...	...	...	...	...	...	...	0.14	1.54	0.27	...	...	...	...
		Bhawanigunge (Gyalanda)...	...	...	2.62	0.50	...	...	0.40	...	...	...	...	...	...	1.30	1.15	0.15	0.63	0.35	...	0.10
		Rangpore...	...	...	0.07	1.34	0.28	1.00	...	...	...	...	...	...	0.15	1.02	0.21	0.55	0.12	0.11	...	0.82
Julpigore...	Kurigram...	...	...	0.81	0.11	0.23	0.37	...	...	...	...	...	0.90	0.73	0.81	0.11	0.24	0.26	...	...	0.75	
	Bagdogra...	...	0.23	0.04	...	0.62	...	...	...	...	...	...	...	...	0.56	0.07	1.02	...	...	...	...
	(Nilphamari)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ulipore...	...	1.98	3.56	...	0.83	...	...	...	...	...	...	...	...	1.54	0.75	1.78	0.23	1.56	...	...
Julpigore...	Julpigore...	...	0.01	...	...	0.27	...	...	...	...	...	0.02	...	1.08	0.37	2.17	0.06	0.07	...	...	0.07	
	Alipore Doar...	...	...	...	0.66	...	0.03	0.70	0.09	...	...	...	0.15	0.41	0.71	0.41	0.23	0.91	0.24	...	...
	Falacutta...	...	...	0.22	...	0.55	...	...	...	...	...	...	...	0.15	0.18	0.11	0.02	0.80	0.55	0.28	...	
	Debiganj...	...	...	...	...	1.70	...	...	...	...	...	...	...	...	...	1.00	3.32	0.09	...	...	...
Cooch Behar...	Bhogotpore (Nagrakatta)...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.32	0.87	1.14	0.75	...	...	0.26	
	Dinhat...	...	...	...	...	0.14	1.40	0.17	0.05	...	...	0.14	0.20	...	1.18	0.46	0.12	0.23	...	...	0.06	
	Cooch Behar...	...	...	...	0.12	0.08	1.10	0.25	...	...	...	0.30	...	...	0.05	0.45	0.29	...	...	...	0.00	
	Mickligunge...	...	...	0.08	...	3.96	...	...	...	...	...	...	0.53	...	1.00	1.25	0.25	0.13	...	...	0.32	
Darjeeling Hill	Matlabhanga...	...	...	0.03	0.01	1.22	0.17	0.05	...	...	0.02	0.24	...	0.06	1.79	0.06	0.15	...	...	0.07	0.08	
	Buxa...	...	...	...	0.01	...	...	0.20	1.23	...	...	0.05	0.17	...	0.73	0.85	0.30	0.14	0.06	...	0.16	
	Siliguri...	...	0.78	0.08	0.07	...	0.53	...	0.26	...	...	0.10	...	0.24	0.15	1.10	1.55	0.04	...	...	0.28	
	Darjeeling...	...	...	0.01	0.30	0.23	0.17	...	...	...	...	0.01	...	...	0.31	1.55	0.28	0.47	0.07	0.06		

in Bengal in May 1890—continued.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1890 up to 31st May 1890.	Average rainfall from 1st January up to 31st May.	District.	Station.	Meteorological division.
1.00	0.12	0.18	1.60	1.40	6	11.2	6.03	7.97	1.80	10.05	14.72	Patnakhally	Backergunge.	EAST BENGAL— concd.																				
0.28	0.31	...	1.54	0.89	...	...	6	10.6	5.81	6.76	1.74	8.47	13.03	Paroosapore.																				
0.36	3.12	0.95	...	...	8	13.9	7.08	7.60	3.12	12.61	15.24	Burrisal.																				
...	0.11	1.75	3.26	0.21	0.14	1.1	13.9	6.77	6.81	3.26	15.03	14.33	Bhoia.		Noakholly.																					
0.70	1.02	...	0.46	...	1.06	1.33	9	?	7.60	?	1.38	9.05	?	Gournaddi.																						
...	0.83	0.23	0.53	2.33	0.08	2.22	12	12.1	10.57	9.44	2.33	19.99	18.01	Noakholly																						
...	0.71	0.30	...	3.45	0.15	2.10	11	14.2	10.41	10.50	3.45	19.92	21.24	Fenny.		Farradpore.																				
...	0.85	...	0.45	2.40	0.50	1.25	11	?	12.20	?	2.40	?	?	Harishpore.																						
...	1.02	1.60	...	1.40	9	?	9.75	?	2.72	16.05	?	Ramganj.																						
...	...	0.02	0.50	0.03	...	0.20	0.70	3.09	11.6	...	8.82	3.00	...	16.85	...	Madaripore		Dacca.																				
0.50	0.07	0.49	0.21	...	0.49	0.18	...	1.02	13	11.1	6.19	8.43	1.20	16.91	...	Furzedpore.																						
...	7.43	1.07	...	15.74	...	Gaulundo.																						
0.07	1.72	...	1.17	2.21	0.52	...	12	11.7	12.11	9.04	3.55	20.00	19.70	Munshigunge		Hill Tipperah.																				
0.40	1.45	0.08	...	1.42	0.02	...	13	12.8	13.47	9.03	2.62	25.07	18.78	Dacca.																						
0.09	2.01	...	0.14	3.07	0.24	...	15	13.5	12.69	8.84	3.19	20.16	17.80	Narsingunge.																						
0.29	0.78	0.16	...	2.04	0.06	...	14	12.3	7.5	8.64	2.04	15.92	16.21	Manickgunge		Tipperah.																				
0.54	1.10	...	0.55	2.21	0.41	...	15	?	12.85	?	2.55	22.20	?	Joydeopore.																						
...	4.14	0.80	...	0.92	13	13.7	12.94	11.00	4.14	23.19	23.09	Azartola																						
0.7	0.07	0.08	0.14	0.64	1.52	...	16	14.0	10.44	10.37	2.2	14.03	21.46	Comilla		Mymensingh.																				
...	0.70	...	0.33	2.10	...	...	11.6	...	8.63	2.10	...	17.64	...	Chauipore.																				
0.04	0.11	0.05	0.70	0.31	1.00	...	17	13.6	10.29	11.02	3.56	19.27	22.83	Brahmunberia.																						
...	0.19	0.10	0.02	...	1.67	0.33	0.60	16	?	8.63	?	1.67	12.93	?	Ramchandra-																					
...	0.50	...	0.05	...	1.13	1.10	19	?	14.94	?	4.30	26.94	?	pore.																						
...	0.00	...	0.22	0.25	...	0.31	9	?	5.18	?	1.51	8.35	?	Nasirnagar.																						
...	0.00	0.30	2.00	1.20	...	0.40	14	?	13.80	?	2.49	15.89	?	Daulkandi.																						
...	1.26	0.00	2.40	0.60	...	2.05	10	?	11.45	?	2.40	19.11	?	Kasha.																						
...	Laksham.		Durgapore.																				
0.4	1.04	1.07	...	0.53	0.33	0.08	1.60	14	13.0	11.84	10.85	2.82	20.06	20.29	Kishoregunge.																					
...	0.29	...	3.26	0.18	...	4.26	10	10.2	14.82	6.89	4.26	23.86	15.41	Atia (Taangail).																						
1.19	1.02	0.22	...	1.89	0.45	0.08	1.00	15	13.4	10.50	12.02	2.00	20.10	21.23	Mymensingh.																					
...	0.80	...	...	2.52	...	...	9	11.0	9.01	9.12	3.21	19.25	15.34	Jamulpore.																		
...	0.39	...	2.00	0.14	0.71	1.00	12	15.4	9.17	11.05	3.00	18.05	18.04	Netrokona.																						
0.50	1.20	...	1.70	...	1.20	1.20	7	?	9.15	?	1.70	17.03	?	Subornakhally.																						
0.78	0.70	...	...	0.40	...	2.40	11	?	13.73	?	5.10	20.21	?	Durgapore.																				
...	1.56	...	...	...	...	1.41	9	?	9.09	?	2.12	21.21	?	Sherepore Town																		
...	1.80	...	2.80	1.10	0.65	0.50	11	?	12.09	?	2.80	15.08	?	Dewanganj.																						
0.85	0.75	...	0.25	0.85	10	11.2	4.82	6.81	0.96	8.25	13.21	Pubna	Pubna	NORTH BENGAL.																				
0.11	0.55	...	1.73	...	...	1.73	10	10.9	11.14	7.83	2.89	20.32	13.40	Serajgunge.																				
0.31	0.63	...	0.21	0.81	...	0.58	11	11.5	4.83	8.47	1.15	7.89	12.74	Sherpore																						
0.26	0.24	...	2.04	0.50	12	11.7	10.23	7.79	3.24	16.89	12.20	Nowkhilla.		Bogra.																				
0.30	0.70	...	0.99	1.55	...	0.25	11	12.1	4.87	8.79	1.25	9.58	14.34	Bogra.																						
0.10	0.20	...	0.50	...	...	0.41	10	8.2	5.78	7.03	1.97	10.82	10.09	Panchbibi.																				
0.81	0.17	0.09	...	0.67	8	10.1	3.69	5.59	1.09	7.18	9.73	Beaulah		Rajshahye.																				
0.15	0.30	...	3.15	...	...	0.23	8	8.1	7.35	6.79	3.16	15.59	11.38	Nattore.																				
...	0.44	...	0.60	0.33	...	0.36	7	7.8	6.13	5.47	2.05	7.61	8.32	Naogaon.																						
...	1.39	...	0.14	...	...	0.50	10	?	5.02	?	1.82	9.04	?	Loipore.																				
...	4	?	3.82	?	1.50	4.13	?	Manda.																						
0.22	0.19	0.02	...	1.42	7	7.7	4.72	3.87	1.42	5.40	7.44	Maldah		Maldah.																				
0.03	0.14	...	0.84	...	...	...	8	7.3	4.55	4.80	1.83	4.78	7.45	Maldah																			
0.33	0.20	...	0.50	...	...	...	7	?	3.47	?	1.30	3.87	?	Chanchal.																			
...	0.16	...	...	0.60	6	?	6.02	?	3.49	7.11	?	Gajol.																				
...	1.15	...	0.92	0.09	...	0.13	9	7.8	6.12	6.24	1.30	6.85	9.01	Subganj.																						
...	1.19	0.37	6	6.3	5.49	4.77	2.80	5.61	6.74	Mohadebpore.		Dinagore.																				
...	0.78	...	0.61	...	...	...	7	7.6	4.40	6.39	1.20	8.05	9.20	Churamon.																			
0.31	0.95	...	0.55	...	...	0.28	14	10.3	8.52	7.93	2.21	12.40	11.84	Raigunge.																				
0.76	0.16	1.25	...	...	...	...	8	7.7	6.16	6.54	1.82	7.92	8.00	Dinagore.																		
...	0.20	0.30	...	...	...	...	10	?	8.45	?	2.69	11.28	?	Balooghata.																		
...	Thakurgaon.		Dinagore.																				
0.80	1.55	...	0.20	...	0.70	0.25	14	10.5	10.69	9.11	2.62	16.83	14.15	Bhawaniunge																						
0.82	0.15	0.11	0.04	0.14	...	0.02	0.67	0.14	...	0.60	10	15.0	8.83	10.67	1.02	11.84	15.74	(Gyabanda).																						
0.41	0.12	...	0.38	0.03	...	0.57	...	...	0.58	0.35	17	10.0	7.29	15.58	0.88	13.11	21.12	Kungpore.																				
...	0.42	...	0.57	0.21	12	11.4	7.96	11.87	2.01	10.97	17.50	Kurigram.		Julpigoree.																				
...	0.95	...	0.56	...	0.92	1.32	...	...	...	...	12	?	15.99	?	3.56	20.76	?	Basdogra.																		
...	(Nilphamari.)																						
0.01	0.16	...	0.29	0.11	0.83	16	14.3	7.47	11.48	2.17	13.59	18.17	Ulipore.																							
0.03	0.29	1.29	0.05	0.15	0.07	19	?	6.44	?	1.29	16.73	?	Alipore Doar.		Julpigoree.																					
...	0.24	0.39	...	0.23	...	14	?	4.72	?	0.86	12.81	?	Falacotta.																							
0.50	1.04	...	...	...	1.51	0.55	...	...	...	8																								

Table of Rainfall recorded at Stations in

[illegible]

[illegible]

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS
TAKEN IN ASSAM, FOR THE MONTH OF MAY 1890.**

THE most noteworthy features in the weather conditions during the month of May are—

1. The very low pressure which continued for several days about the end of the first week, when there was defect of two-tenths of an inch in the eastern districts. This was in connection with the cyclonic storm off the Burmah coast, which appearing on the 7th went inland the same night and moved to the north-north-east. While it existed, that is, from the 7th to the 9th, the low pressure continued in Bengal, but after the 9th a continued rise set in, and about the middle of the month a considerable excess was general. During the latter half of the month the usual small oscillations occurred, and the means were generally above the normal. The low pressure of the first week has had a considerable influence on the means for the whole month, as, had it not occurred, the mean pressure would probably have been slightly above the normal, whereas there is everywhere defect, in some cases almost equalling a twentieth of an inch.

2. Very high temperature prevailed during the early part of the month, excess, especially in the north-western districts, remaining between 5° and 10° . The daily changes were not large, and very high maximum temperatures were frequently registered, all the inland stations at some time during this period of intensely hot weather having reported more than 100° . After the storm off the Burmah coast disappeared unsettled conditions set in, and large changes of temperature occurred, though generally with considerable irregularity. In temperature, as stated above concerning pressure, the very high records for the early part of the month have given a considerable excess to the means for the whole month, notwithstanding that the last three weekly means were below the normal.

3. Easterly winds have been blowing very frequently in all districts. In North Bengal and Behar the directions have almost never varied, the only days when westerly winds have reached Behar being from the 8th to the 11th, when pressure was very low over the eastern districts of the province. The area of lowest pressure has generally been in Chutia Nagpur or between Chutia Nagpur and Orissa. The lines of equal pressure have therefore been running from north to south or from north-west to south-east, and the wind directions in Lower Bengal when the first arrangement obtained have been south with perhaps a slight westerly element, but in the second have been south-easterly. These south-easterly winds have prevailed throughout the greater part of the last half of the month, and have probably had an important influence on the rainfall distribution.

4. Rainfall was almost entirely absent during the first week except in North Bengal, fairly equally distributed during the second week, while for the rest of the month it would appear that the almost constant easterly winds deprived North Bengal of a portion of the moist air which at this season of the year flows in considerable quantity over that district. During the third and fourth weeks there was about 25 per cent. less rain than usual in North Bengal and about as much more in other districts, during the third week in South-West Bengal, and the fourth in East Bengal. The mean fall for the whole month has been below the normal in all districts except East Bengal.

5. The first appearance of the moist winds in the south of the Bay was probably about the 27th of April, as wind velocity from being steadily about three miles an hour at Galle rose to ten and twelve miles. As a rule these stronger winds last for a few days only, and die away in the southern half of the Bay, but probably this year the low pressure over the northern half of the Bay and Bengal made the passage up the Bay more easy, for about ten days after the winds strengthened in the south the cyclonic storm formed near the Andamans, and passing to the west of Diamond Island, went over Burmah, giving general rain and stormy weather as far west as the central districts of Bengal. Again about the 8th of May the winds strengthened at Galle, and have continued moderately strong almost without a change.

At the beginning of the month settled weather with falling pressure and high temperature was general, but showers were falling in East Bengal till the 5th and in North Bengal daily. After the first few days pressure again became nearly normal, but on the 7th the rapid fall set in which caused the very wide depression at the centre of which the stormy weather developed on the Burmah coast. As stated above, the storm was of very short duration, breaking up in Burmah soon after crossing the coast on the 7th. The chief influence of the depression on the weather in Bengal was seen in the very light winds while it was forming not far from Diamond Island, and afterwards when it passed inland in the very strong winds which blew over East and South-West Bengal on the 9th. The rain which fell in East Bengal immediately afterwards must also have been due to the disturbed condition of the atmosphere consequent on the breaking up of the storm. During this part of the month dry clear weather prevailed in the western districts, temperature being from 6° to 10° in excess, and no rain whatever falling. On the 11th conditions in Bengal underwent a distinct change. Pressure rose rapidly in the eastern districts, and as gradients became much steeper with the lowest pressure in the west, easterly winds commenced, and unsettled weather with heavy showers passed from the east over the greater part of the province. At first the rainfall was confined to Dacca, Furreedpore and Tipperah, it then began in South-West Bengal and afterwards in Behar on the 13th, the moist air as it spread over the province causing a rapid fall of temperature. During the last half of the month the daily conditions were almost

identical: pressure varied very slightly from the normal, rainfall was scattered and in some cases heavy, while temperature underwent large changes caused by the local heavy showers. The wind circulation was practically the same day after day: south or south-east in South-West and East Bengal, east in North Bengal and Behar, and south-west in Orissa and Chutia Nagpur.

Pressure—During the first three or four days fell till defect was everywhere about a tenth of an inch, after which it rose for a day or two, but again fell very rapidly, so that by the 7th defect amounted to nearly a quarter of an inch in North Bengal and part of Assam, diminishing gradually to a tenth of an inch in the extreme west. A low-pressure area, within which pressure was everywhere more than $\frac{1}{2}$ inch in defect, extended along the east side of the province and deepening in the east of the Bay. It intensified in North Bengal on the 8th to nearly $\frac{3}{4}$ inch below the normal, and defect had increased to $\frac{1}{6}$ inch in Chutia Nagpur and to $\frac{1}{5}$ inch in North Behar. The depression was filling up on the 9th, and by the 11th the distribution was very nearly normal. For the week ending the 9th the means were all more than a tenth of an inch in defect, and at Serajgunge and Bernampore the difference was $\frac{1}{5}$ inch. The means for the next two weeks were above the normal at all stations by amounts ranging from two to six-hundredths of an inch, but during the last week the barometer had again fallen, and defect ranged up to a twentieth, though generally about three-hundredths of an inch.

Temperature—Was unusually high during the first ten days, and the maximum temperatures especially were largely in excess. The following stations reported maximum temperatures over 110° :—Cuttack, Midnapore, Bankoora, RaneeGUNGE, Dehree, Gya, Bankipore, and Chyebassa, and at all except the coast stations temperature was at some time over 100° . In Behar the heat was most intense on the 6th and 7th, and in the other districts on the 9th. The means for the large divisions were all, except Orissa and North Bengal, more than 5° above the normal, and those for the western districts were from 6° to 8° above. The excess amounts were as follows:—South-West Bengal 7.1° , South Behar 6.8° , Chutia Nagpur 6.1° , North Behar and Assam 5.5° , East Bengal 5.3° , North Bengal 4.2° , and Orissa 3.5° . Temperature began to fall in the eastern districts, but the intense heat continued in the west of the province till the 13th, when a very rapid fall followed the showery weather which set in over the greater part of the province between these dates. Irregular large changes occurred during the greater part of the month, but it is unnecessary to specify them, as they were generally confined to small areas and dependent on local irregular rainfall. The means for the week ending on the 16th were below the normal in all districts except South-West Bengal and Orissa, but differences were over 2° in South-West Bengal and Assam only. During the rest of the month temperature was below the normal, so that from the 11th to the end of the month, that is, during two-thirds of the month, comparatively cool weather has been general; still, owing to the intense heat of the first ten days, the means for the whole month are all above the normal. Excess in South-West and East Bengal, South Behar and Assam is between 1° and 1.3° , in Chutia Nagpur $.9^{\circ}$, Orissa $.7^{\circ}$, North Behar $.4^{\circ}$, and North Bengal $.1^{\circ}$. The highest temperature observed during the month in South Behar was 112° , in South-West Bengal and Orissa 111.5° , in North Behar 108.5° , Chutia Nagpur 106° , and East Bengal 100.5° .

Rainfall—As stated above, was practically absent during the period of intensely hot weather in the early part of the month, the only districts where showers were at all frequent being Tipperah, Mymensingh, Kungpore, Julpigoree, Cooch Behar, and the Darjeeling Hills, but the falls even in these districts show a large deficiency. From the 11th to the 15th heavy and fairly general rain fell, the amounts for the week ending on the 16th being above the average in all districts except South-West Bengal where, however, defect was only a tenth of an inch. During the rest of the month showers continued, and the falls were generally up to the average and in some cases above, but in North Bengal there was about an inch defect during this half of the month. The means for the whole month are below the normal in all districts except East Bengal, where there is a slight excess. Of those districts, the falls in Orissa and Behar are practically normal, in South-West Bengal $.7$ inch, in Chutia Nagpur nearly 1 inch, and in North Bengal 1.6 inches below the normal.

Along the east side of the province from Noakhally northwards as far as Cooch Behar, the falls were between 10 and 15 inches at a large majority of the stations; in the Sunderbuns, the eastern half of South-West Bengal and the whole of North Bengal between 5 and 8 inches; in Orissa and the adjacent part of South-West Bengal generally between 3 and 5 inches; in Behar between 2 and 3 inches, except in the Sonthal Pergunnahs, where 4 to 5 inches were general; and over the whole of Chutia Nagpur, except a strip along the eastern boundary, less than one inch. Differences from the normal were generally small in all districts except North Bengal, and there the largest defects were in Cooch Behar and Julpigoree, amounting in some cases to 8 or 10 inches.

The following table gives full data for the comparison of the actual and the normal rainfall of the month of May in all districts of the province. The figures are derived from the average and actual rainfall of the rain-recording stations in each district, due allowance being made for the area which each station represents. This gives a more accurate average than the arithmetical means given in the weekly and monthly meteorological tables. The first column gives the normal or average district rainfall as determined from the rainfall observations of the past 15 years. The second column gives the actual district rainfall as determined from the weighted actual rainfalls of the month at the reporting stations in each district. The third column expresses the ratio of the actual district rainfall of the past

month to the normal rainfall as a percentage. The fourth column gives the same information as the third in a slightly different form, stating as a percentage how much the district rainfall of the month varied in excess or defect from the normal:—

Percentage table for May 1890.

DIVISION.	DISTRICT.	Normal district rainfall for May.	Actual district rainfall for May 1890.	Percentage of actual to normal rainfall.	Percentage excess (+), defect (—).
Orissa	Pooree	2.76	2.17	79	— 21
	Cuttack	3.95	4.26	108	+ 8
	Balasore	4.95	5.23	106	+ 6
	Midnapore	5.05	6.84	135	+ 35
	24 Pargunnahs	5.79	6.04	104	+ 4
	Howrah	5.81	4.60	79	— 21
South-West Bengal	Hooghly	5.34	4.98	92	— 8
	Burdwan	5.01	3.17	61	— 39
	Bankoora	4.03	4.58	114	+ 14
	Beerbhoom	3.40	2.38	70	— 30
	Nuddea	6.35	4.62	73	— 27
	Khoolna	6.61	6.82	103	+ 3
East Bengal	Jessore	7.01	5.72	82	— 18
	Moorsheadabad	6.21	2.44	47	— 53
	Chittagong	6.54	4.11	63	— 37
	Backergunge	7.80	6.40	85	— 15
	Noakholly	10.05	10.78	107	+ 7
	Furreedpore	8.80	6.44	73	— 27
North Bengal	Dacca	8.70	11.87	136	+ 36
	Tipperah	10.21	10.29	101	+ 1
	Mymensingh	9.94	11.06	111	+ 11
	Pubna	7.11	7.98	112	+ 12
	Bogra	7.91	6.04	76	— 24
	Rajshahye	6.09	5.41	89	— 11
North Behar	Maldah	4.60	4.64	103	+ 3
	Dinapore	6.45	6.14	95	— 5
	Rungpore	11.24	8.65	77	— 23
	Cooch Behar	13.86	7.31	53	— 47
	Jalpigoree	11.96	7.47	62	— 38
	Darjeeling	7.70	5.96	77	— 13
South Behar	Purneah	5.60	4.38	80	— 20
	North Bhagulpore	3.96	2.66	67	— 33
	Durbhunga	2.48	2.46	92	— 8
	Mozufferpore	2.51	2.44	97	— 3
	Chumprun	2.60	3.95	152	+ 52
	Saran	1.92	2.19	114	+ 14
Chutia Nagpur	Shahabad	1.30	0.70	54	— 46
	Gya	1.74	1.01	58	— 42
	Patna	2.18	2.15	98	— 2
	Monghyr	2.34	2.67	114	+ 14
	South Bhagulpore	2.64	4.38	166	+ 66
	Sonthal Pargunnahs	3.75	3.14	83	— 17
Assam	Hazaribagh	2.38	1.18	50	— 50
	Lohardugga	2.35	1.15	49	— 51
	Singbhoom	4.17	4.25	102	+ 2
	Manbhoom	3.25	2.80	86	— 14

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of May 1890:—

METEOROLOGICAL DIVISIONS.

	TEMPERATURE.						RAINFALL.							
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 15th May 1890.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.
Orissa	111.4	68.9	94.9	79.9	86.9	+0.7	3.84	3.87	-0.03	7.6	7.0	+0.0	3.34	2.17
South-West Bengal	111.3	67.2	97.9	77.9	87.9	+1.3	4.71	5.40	-0.69	7.9	9.0	-1.1	4.11	2.75
East Bengal	106.3	65.7	90.3	75.9	83.0	+1.0	9.44	9.26	+0.18	12.6	12.7	-0.1	6.96	4.43
North Bengal	105.3	66.2	90.4	74.5	82.5	+0.1	6.88	8.52	-1.64	11.8	11.0	+0.8	4.04	5.45
North Behar	108.8	66.0	90.7	75.7	86.2	+0.4	2.63	3.20	-0.57	5.1	5.0	+0.1	2.03	1.85
South Behar	112.1	67.5	101.7	75.0	89.3	+1.0	2.28	2.39	-0.11	4.1	4.2	-0.1	1.54	1.69
Chutia Nagpur	104.0*	63.9*	93.8*	74.6*	84.7*	+0.9*	1.72	2.05	-0.33	4.8	5.0	-1.1	1.22	1.71
Assam	102.67	62.4	83.1	73.1	80.6	+1.1								

* Only observations not included.

METEOROLOGICAL OFFICE, BENGAL,
The 10th June 1890.

C. LITTLE,
Offg. Meteorological Reporter to the Govt. of Bengal.

Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of May 1890.

	Inches.	Date.	Hour.
The mean pressure of the month	29.638		
The average pressure of May from 24 years' registers ...	29.656		
The highest pressure in the month	29.890	14th	10
The lowest pressure in the month	29.419	7th	16
The range of pressure	0.471		
Hours.			
The total number of hours of bright sunshine during the month	239.8		
The maximum possible number of hours of sunshine ...	408.3		
°			
The mean temperature of the month	86.4		
The average temperature of May from 24 years' registers	86.1		
The highest temperature in the month	105.4	8th.	
The lowest temperature in the month	67.2	16th.	
The range of temperature during the month	38.2		
The mean daily range of temperature	18.2		
The greatest range of temperature in one day	25.0	8th.	
Per cent.			
The mean humidity of the month	74		
The average humidity of May from 24 years' registers ...	73		
Inches.			
The mean vapour pressure of the month	0.922		
The average vapour pressure of May from 9 years' registers ...	0.933		
The mean cloud proportion of the month	4.20		
The average cloud proportion of May from 13 years' registers	4.53		
The total rainfall of the month	5.34		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	5.14		
The average fall of May from 48 years' registers	5.40		
The greatest fall in 24 hours	1.47	15th.	
Days.			
The number of rainy days in the month	15		
The average number of rainy days in May from 24 years' registers	13		
°			
The mean maximum equilibrium temperature of solar radiation during the month	150.3		
The mean difference of sun and air temperatures	55.0		
The greatest sun temperature	157.8	8th.	
The greatest excess of sun over air temperature	60.4	25th.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth	74.4		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground	2.7		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature	4.9	7th.	
Miles.			
The mean movement of the wind per day	144.5		
The greatest movement of the wind in one day	243.0	10th.	
The greatest movement of the wind in one hour	20.0	10th 2 to 3 A.M. and 13th 3 to 4 P.M.	
The number of hours with winds from each of the 8 points—			
N. 10, N.E. 28, E. 74, S.E. 129, S. 269, S.W. 184, W. 25, N.W. 8, Calm 17.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 0.5 higher; and finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;
Calcutta, the 9th June 1890.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.
ORISSA.	Pooree	Pooree	29.625	29.637	—	SW	322	94.2	4th June	79.6	31st May	92.3	83.7	88.0	—	86.3
		Gopalpore	29.619	29.640	+0.023	SW	309	91.2	2nd "	81.8	5th June	90.4	84.2	87.3	+2.5	87.0
		False Point	29.625	29.646	+0.009	Southerly	384	94.0	1st "	70.1	31st May	92.2	81.9	87.1	+0.7	88.1
	Cuttack	Cuttack	29.570	29.630	+0.059	SW	—	103.4	2nd "	73.3	31st "	100.7	81.2	91.0	+0.8	87.6
SOUTH-WEST BENGAL.	Balasore	Balasore	29.595	29.634	+0.038	South-Westerly	204.6	98.0	5th "	73.8	2nd June	95.6	77.7	86.7	—0.1	86.2
	South-West Midnapore	Sangor Island	29.629	29.635	+0.025	SSW	487	93.2	3rd "	75.0	6th "	92.5	83.2	87.9	+0.7	86.8
	South 24-Pergunnahs	Midnapore	29.849	29.631	+0.067	S	216.3	100.3	6th "	74.1	5th "	98.3	79.6	89.0	—0.4	86.1
	Midnapore	Midnapore	29.849	29.631	+0.067	S	216.3	100.3	6th "	74.1	5th "	98.3	79.6	89.0	—0.4	86.1
	24-Pergunnahs	Calcutta	29.616	29.637	+0.015	S & SSW	182	95.5	2nd & 3rd June	71.2	6th "	93.8	78.5	86.2	0	85.2
	Howrah	Howrah	29.616	29.637	+0.015	S & SSW	182	95.5	2nd & 3rd June	71.2	6th "	93.8	78.5	86.2	0	85.2
	Hooghly	Hooghly	29.616	29.637	+0.015	S & SSW	182	95.5	2nd & 3rd June	71.2	6th "	93.8	78.5	86.2	0	85.2
	Burdwan	Burdwan	29.618	29.617	—0.008	S & SSW	204.1	99.2	1st "	74.4	6th "	97.8	80.3	89.0	+1.1	84.9
	Bankura	Bankura	29.295	29.592	—0.009	S	166.6	100.6	5th "	72.1	2nd "	97.7	79.0	88.4	—	85.0
	Boerhoom	Raneegunge	29.284	29.614	—0.001	SW & SSW	108.1	104.5	6th "	70.8	6th "	101.0	81.0	91.0	+1.6	85.6
EAST BENGAL.	West Burdwan	West Burdwan	29.537	29.603	—0.013	S	194.3	100.7	1st "	70.3	2nd & 6th June	98.3	79.5	88.9	+2.4	84.2
	Moorsheadabad	Berhampore	29.537	29.603	—0.013	S	194.3	100.7	1st "	70.3	2nd & 6th June	98.3	79.5	88.9	+2.4	84.2
	Nudda	Krishnagur	29.560	29.636	+0.014	SSE	223.0	97.3	2nd, 4th & 6th June	71.8	5th "	95.4	77.2	86.3	0	84.1
	Jessore	Jessore	29.617	29.650	+0.004	SSE	121.8	96.8	3rd "	75.4	6th "	94.8	78.5	86.7	+1.1	84.7
	Khoolna	Khoolna	29.617	29.650	+0.004	SSE	121.8	96.8	3rd "	75.4	6th "	94.8	78.5	86.7	+1.1	84.7
	Chittagong	Chittagong	29.639	29.720	—0.006	SE	139.3	90.1	3rd "	75.0	1st "	87.8	77.9	82.9	+1.2	83.1
	Chittagong Hill Tracts	Dumagiri	—	—	—	—	—	Observations not received.							—	—
	Backergunge	Barrisal	29.696	29.678	+0.020	S	152.3	91.8	3rd—5th June	78.3	1st "	90.4	80.2	85.3	+2.7	84.3
	Noakholly	Noakholly	29.671	29.714	+0.035	SE	185.3	89.3	6th "	69.5	31st May	87.4	76.9	82.2	+0.5	80.4
	Furzedpore	Furzedpore	29.636	29.676	+0.018	S	189.7	94.5	3rd "	72.9	31st "	90.9	77.5	84.2	+2.0	81.8
NORTH BENGAL.	Dacca	Dacca	29.662	29.755	+0.012	S	211.3	92.6	3rd—5th June	69.2	1st June	90.6	74.0	82.8	—2.6	81.7
	Commillah	Commillah	29.698	29.702	+0.004	SE	153.8	92.3	3rd "	69.8	31st May	89.4	75.5	82.5	+0.5	80.6
	Mymensingh	Mymensingh	29.625	29.684	+0.010	ESE	154.5	90.2	3rd "	71.1	4th June	85.8	74.9	80.0	—0.7	79.6
	Bogra	Bogra	29.573	29.634	+0.006	Variable	121.5	93.3	3rd "	48.6	4th "	89.9	74.8	82.4	—1.1	81.2
	Pabna	Soragunge	29.590	29.643	—0.010	Southerly	137.9	92.1	3rd "	70.7	31st May & 4th June	100.0	74.8	85.4	+0.2	80.7
	Rajshahye	Rampore Beaulah	29.551	29.621	0	SE	213.3	93.8	31st May & 1st June	74.1	1st "	94.3	77.6	86.0	+1.7	83.3
	Maldah	Maldah	29.534	29.610	+0.043	Variable	85.5	96.9	1st "	73.8	2nd "	93.7	77.2	82.2	—	82.5
	Dinapore	Dinapore	29.516	29.638	—0.027	Variable	98.0	92.6	31st May & 3rd June	69.6	1st "	87.7	73.5	80.6	—2.2	76.7
	Rongpore	Rongpore	29.547	29.673	—0.017	ESE	103.9	93.8	3rd "	70.7	1st "	86.8	73.1	79.5	—1.8	76.5
	Julpigoree	Julpigoree	29.536	29.657	—0.053	?	?	89.4	31st May & 3rd June	70.1	4th & 5th June	84.1	72.1	78.1	—2.1	73.5
NORTH BHAR.	Cooch Behar	Cooch Behar	29.536	29.657	—0.053	?	?	89.4	31st May & 3rd June	70.1	4th & 5th June	84.1	72.1	78.1	—2.1	73.5
	Darjeeling Hill Tracts	Darjeeling	29.856	—	—0.043	WSW	228.3	67.9	1st "	53.6	1st "	64.7	53.1	59.9	+1.3	58.9
	Purneah	Purneah	29.483	29.615	—0.019	ESE	124.1	93.7	31st May	70.4	4th "	90.7	75.1	82.0	—2.3	80.2
	North Bhagulpore	North Bhagulpore	29.483	29.615	—0.019	ESE	124.1	93.7	31st May	70.4	4th "	90.7	75.1	82.0	—2.3	80.2
	Mozufferpore	Mozufferpore	29.381	29.563	—	E	212.3	101.4	6th June	74.2	31st May	90.5	79.0	89.2	—	82.7
	Durbhunga	Durbhunga	29.433	29.569	—0.020	ESE	200.1	96.4	3rd "	?	?	87.8	?	?	?	84.9
	Chumbarun	Motibari	29.361	29.589	—0.025	ESE	219.0	98.2	6th "	75.9	6th June	95.8	77.3	86.6	+1.1	83.1
	Baran	Chopra	29.365	29.569	—0.058	E	151.7	102.3	3rd & 6th June	70.5	6th "	101.4	80.6	91.0	+3.7	86.2
	Shahabad	Dohra	29.239	29.586	—0.013	SSW	124.1	110.4	4th "	83.0	4th "	108.5	85.4	90.9	+2.7	83.0
		Arrah	29.345	29.549	—0.062	ESE	157.0	107.9	3rd "	82.7	1st "	105.0	84.0	94.5	+5.0	89.4
SOUTH BHAR.	Gya	Gya	29.190	29.500	—0.041	Variable	173.4	110.6	4th—6th June	83.8	31st May	108.6	87.3	98.0	+0.8	93.5
	Patna	Rankipore	29.377	29.560	—0.059	E	159.5	104.6	3rd "	70.2	1st, 5th, 6th June	102.8	89.5	91.9	—2.1	84.7
	South Bhagulpore	Bhagulpore	29.400	29.568	—0.042	South-easterly	118.7	109.5	5th "	70.0	1st "	97.1	79.0	88.4	+3.8	83.5
	Mouhlyr	Mouhlyr	29.400	29.568	—0.042	South-easterly	118.7	109.5	5th "	70.0	1st "	97.1	79.0	88.4	+3.8	83.5
	South 24-Pergunnahs	Doomka	29.057	29.587	—0.005	S	262.4	102.7	6th "	71.8	2nd "	95.7	79.7	89.2	+2.5	85.2
	Hazaribagh	Hazaribagh	27.625	29.595	—0.013	SSW	270.0	103.5	4th—6th June	78.0	2nd & 4th June	101.9	89.2	91.0	+4.4	85.4
	Lohardogga	Rancher	27.519	29.609	—0.092	SW	168.9	101.0	2nd "	72.4	6th "	98.5	76.0	87.2	+0.3	83.0
	Manikbhum	Manikbhum	27.519	29.609	—0.092	SW	168.9	101.0	2nd "	72.4	6th "	98.5	76.0	87.2	+0.3	83.0
	Singbhum	Chyabassa	28.563	29.618	+0.018	WSW	99.6	106.3	5th "	77.7	1st "	103.2	81.0	92.1	+0.8	86.3
	Assam	Sibangar	29.340	29.716	—0.003	Variable	—	89.6	3rd "	71.9	6th "	86.0	73.6	79.8	—1.9	77.3
INDIA.		Dhubri	29.543	29.661	—0.022	Variable	165.9	96.2	3rd "	70.8	6th "	82.4	72.9	77.7	—2.7	74.3
		Silchar	29.615	29.719	—0.011	Calm	35.8	92.3	3rd "	72.8	6th "	87.4	75.1	81.2	—0.8	79.7

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed in percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The numbers are the arithmetical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations for the period in question during the past season in the district ending in returns are given to a number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 6th of June 1890.

DISTRICT OBSERVATIONS.															Representative station.	DISTRICT.	METEOROLOGICAL DISTRICT.
Average at 9 A.M.	Average cloud amount at 9 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.						Average number of rainy days.	Normal number of rainy days.					
			Mean for district.	Normal mean.	Since 1st of May.			Since 15th May 1890.									
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.							
88	4.6	Nil	0.12	0.84	2.24	3.82	-1.58	2.31	2.53	-0.22	0.8	1.5	Poorce	Poorce	ORISSA.		
83	2.6	0.45											Gopalpore				
79	7.3	Nil											False Point				
74	0.6	1.46	0.79	1.11	3.82	4.47	-0.65	3.41	3.02	+0.39	1.0	1.8	Cuttack	Cuttack	ORISSA.		
90	0.3	1.82		1.29		5.39			3.69			1.9	Balasore	Balasore			
81	7.7	1.27	1.17	1.38	8.59	6.08	+2.51	8.14	3.55	+4.59	1.3	2.2	Sauzer Island	South-West Midnapore			
76	2.6	0.29	0.64	1.03	7.16	6.60	+0.56	6.84	3.54	+3.30	2.3	2.2	Midnapore	South 24-Pergunnahs	SOUTH-WEST BENGAL.		
81	6.6	2.41	2.10	2.95	7.15	7.61	-0.46	6.74	4.57	+2.17	2.1	2.6	Calcutta	24-Pergunnahs			
75	8.6	1.06	1.51	1.63	4.67	6.69	-1.93	4.34	4.18	+0.16	3.3	2.1	Burdwan	Howrah			
79	2.7	1.41	1.30	1.83	5.35	5.41	-0.06	5.35	3.72	+1.63	2.0	2.0	Bankoora	Hooghly	SOUTH-WEST BENGAL.		
74	3.7	0.63	1.89	1.43	3.76	4.69	-0.93	3.66	3.25	+0.41	2.5	2.1	Raneegunge	West Burdwan			
81	8.6	0.06	0.50	1.84	3.80	6.87	-3.07	7.08	4.76	-1.68	1.3	2.6	Berhampore	Moochedabad	SOUTH-WEST BENGAL.		
80	7.3	1.24	1.33	2.24	5.71	8.38	-2.67	5.90	5.55	-0.55	2.8	2.7	Krishnagar	Nuddea			
87	8.3	0.77	0.76	2.21	6.87	8.00	-2.03	5.42	5.99	+0.57	2.6	3.0	Jessore	Jessore	SOUTH-WEST BENGAL.		
80	4.6	1.29	1.32	5.13	6.44	14.70	-8.26	6.61	9.95	-3.34	1.0	4.4	Chittagong	Khoolna			
85	5.9	0.30	1.35	3.8	6.69	14.70	-8.26	6.61	9.95	-3.34	1.0	4.4	Chittagong	Chittagong	SOUTH-WEST BENGAL.		
86	3.3	2.27	2.30	5.78	10.72	15.73	-4.94	8.15	10.08	-1.93	2.0	3.8	Barisal	Chittagong Hill Tracts			
86	6.0	0.91		2.99		11.15			6.88			3.1	Furzedpore	Backergunge	SOUTH-WEST BENGAL.		
90	8.9	4.22	3.78	2.50	12.56	11.13	+1.43	9.94	6.31	+3.63	3.8	3.8	Dacca	Noakholly			
90	7.0	3.55		3.55		13.28			7.40			3.7	Commillah	Furzedpore	SOUTH-WEST BENGAL.		
92	9.0	4.61	4.60	3.54	14.33	12.89	+1.44	10.36	8.15	+2.21	4.8	3.6	Mymensingh	Dacca			
85	6.5	2.94	3.04	3.13	9.04	10.56	-1.52	6.98	7.33	-0.35	3.8	3.1	Bogra	Tipperah	SOUTH-WEST BENGAL.		
89	7.7	3.36	3.34	2.66	9.42	9.58	-0.16	7.61	6.30	+1.31	3.5	3.1	Serajpore	Mymensingh			
82	2.4	0.54	1.88	1.91	7.52	7.51	+0.01	6.50	5.14	+1.36	3.0	2.3	Rampore Beaulah	Bogra	SOUTH-WEST BENGAL.		
86	0.9	0.93	0.69	1.62	5.32	5.84	-0.52	5.11	4.18	-1.07	2.0	2.1	Maldah	Rubna			
90	9.0	2.94	3.23	2.64	9.23	8.20	+1.03	6.57	6.27	+0.30	3.2	2.6	Dinapore	Rajshahye	SOUTH-WEST BENGAL.		
91	6.3	10.14	3.77	3.99	18.24	14.70	+3.54	13.79	10.86	+2.93	6.5	3.3	Rangpore	Maldah			
95	6.7	9.44	12.91	5.05	20.11	17.56	+2.55	15.90	13.21	+2.68	6.8	4.5	Julpigoree	Dinapore	SOUTH-WEST BENGAL.		
96	8.6	2.28	0.84	3.28	13.32	13.75	-0.43	10.95	9.65	+0.70	6.8	4.6	Darjeeling	Rangpore			
84	7.6	2.72	1.71	1.43	5.28	6.94	-0.76	3.70	4.13	-0.43	2.4	1.6	Purneah	Cooch Behar	SOUTH-WEST BENGAL.		
73	1.4	Nil	0.02	0.52	2.62	2.96	-0.34	1.80	1.83	-0.03	0.3	1.2	Mozufferpore	Darjeeling Hill Tracts			
85	1.6	Nil	Nil	0.69	2.31	3.23	-0.92	1.22	1.99	-0.77	0.6	1.1	Durbhunga	Purneah	SOUTH-WEST BENGAL.		
76	6.3	Nil	Nil	0.78	4.35	3.37	+0.98	3.72	2.13	+1.59	0.6	1.4	Matihari	North Bhagulpore			
74	2.9	Nil	Nil	0.38	2.09	2.36	-0.27	1.67	1.46	+0.21	0.6	0.9	Chupra	Chumbarun	SOUTH-WEST BENGAL.		
76	3.4	Nil	Nil	0.31	1.29	2.05	-0.73	0.91	1.64	-0.73	0.6	0.8	Gya	Saran			
71	4.6	Nil	0.10	0.16	0.81	1.43	-0.63	0.69	1.01	-0.32	0.4	0.6	Buxar	Shahabad	SOUTH-WEST BENGAL.		
65	5.1	Nil	Nil	0.31	1.29	2.05	-0.73	0.91	1.64	-0.73	0.6	0.8	Gya	Gya			
73	1.4	0.01	Nil	0.31	2.41	2.40	+0.01	1.30	1.74	-0.44	0.6	0.9	Bankipore	Patna	SOUTH-WEST BENGAL.		
80	4.9	0.14	0.13	0.64	3.48	2.97	+0.51	2.30	2.13	+0.17	0.6	1.3	Bhagulpore	South Bhagulpore			
73	0.4	1.05	0.81	1.81	4.06	4.84	-0.78	3.12	3.44	-0.32	2.3	2.0	Doomka	Monahyr	SOUTH-WEST BENGAL.		
82	7.7	0.17	0.33	0.70	1.17	3.13	-1.96	0.87	2.22	-1.35	1.0	1.4	Hazaribagh	Sonthal Pergunnahs			
69	6.9	1.29	0.13	0.56	1.96	2.85	-0.89	1.48	2.23	-0.75	1.0	1.3	Ranchi	Hazaribagh	SOUTH-WEST BENGAL.		
64	5.1	0.47	0.23	0.89	4.31	3.82	-0.49	2.07	2.71	-0.64	3.0	2.0	Chyebassa	Lohardugga			
96	9.3	4.63											Sibsagar	Manthoom	SOUTH-WEST BENGAL.		
92	9.6	14.93											Dhubri	Assam			
87	8.9	0.73											Silchar				

ten years. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. Under the head District observations of rainfall the normal means denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. The means of the district are the numerical average of the rainfall return received in the district, i.e., from total rainfall at the subdivisions for 10 years.

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Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rain- fall since 1st of May.	Average total rain- fall from 1st of May.	Total rain- fall since 1st May 1890.	Average rainfall from 1st May to date.
			Saturday, 31st May.	Sunday, 1st June.	Monday, 2nd June.	Tuesday, 3rd June.	Wednesday, 4th June.	Thursday, 5th June.	Friday, 6th June.	Number of rainy days.	Total rainfall in week.				
ORISSA	Poonce	Poonce	0.04					0.20	Nil	Nil	1.84	3.29	1.84	2.14	
		Khurda							2	0.33	4.15	4.21	4.15	2.71	
		Banpur			0.17				1	0.17	0.67	2.46	0.59	1.78	
		False Point							Nil	Nil	2.33	4.80	2.31	3.35	
		Gop													
	Cuttack	Satpara													
		Pipli													
		Jagatsingapore	0.30						1	0.30	1.05	3.29	0.59	1.78	
		Banki	0.45						1	0.45	1.15	2.83	3.15	2.38	
		Outback	2.60				0.57		2	3.17	4.30	5.18	3.79	3.79	
	Balasore	Kendrapara							Nil	Nil	3.73	5.19	3.61	3.30	
		Jajpore			0.04				1	0.04	0.73	0.77	0.96	3.81	
		Dharmasala			0.20	0.10			2	0.30	0.35	4.00	4.00	2.00	
		Salipore				0.09			1	0.09	2.51	2.11	2.11	2.11	
		Chandbali	0.01						1	0.01	4.04	6.11	3.24	3.27	
SOUTH-WEST BENGAL	Midnapore	Bhuddruck	0.20						1	0.20	4.57	6.54	4.97	4.41	
		Sorah								0.15	5.35	6.18	4.45	4.16	
		Balasore			0.10				2	1.00	5.10	5.89	7.33	3.73	
		Jelinsore									4.52	6.05	3.97	2.91	
		Raripodah		0.03			0.20	1.17	3	1.40	6.12	6.05	3.97	3.29	
	21-Pargunnahs	Contai							2	0.29	10.35	5.65	10.17	3.22	
		Sanger Island							1	1.27	6.03	6.17	6.85	3.94	
		Tumlook			0.19				3	0.80	10.00	6.19	9.80	3.54	
		Midnapore					0.40	0.10	2	0.50	6.31	6.62	5.81	3.47	
		Ghatat			0.19				2	0.63	5.17	7.01	4.92	3.61	
	Howrah	Kulrahatty							1	0.98	6.38	6.38	5.96	3.61	
		Garbatta							2	0.42	3.88	3.88	3.88	3.88	
		Diamond Har- bour							1	1.05	8.47	6.43	7.38	3.59	
		Canning Town							2	1.45	5.97	5.97	5.97	5.97	
		Alipore Jail			0.04				2	0.20	2.48	7.42	6.91	4.70	
Hooghly	Barrackpore							2	0.08	1.19	6.85	7.43	4.65		
	Dum-Dum							1	1.34	4.82	7.63	4.64	4.66		
	Barasat							2	0.18	1.54	8.24	7.99	8.68		
	Bisnath			0.46				2	2.18	9.92	9.63	8.79	6.10		
	Howrah							2	1.29	5.15	6.19	5.93	3.83		
Hooghly	Howrah			0.59				2	3.75	4.34	9.39	8.01	9.90	4.34	
	(Oolobertah.)														
	Serampore			0.01				2	1.52	6.97	7.12	6.70	4.41		
	Hooghly							2	2.52	6.25	7.43	6.51	4.35		
	Jehanshad			0.19				3	1.15	6.29	6.43	6.39	4.04		
Hurdwan	Culina			0.40				3	3.12	6.18	6.45	5.77	3.80		
	Hurdwan			0.16				2	0.70	4.82	5.96	3.83	3.80		
	Cutwa		0.04		0.03			4	0.18	0.10	4.35	3.82	3.42	4.94	
	Raneegunge			0.21				2	0.40	0.40	3.11	4.19	3.02	3.02	
	Manikpur							1	0.89	5.03	5.03	5.03	5.03		
Bankoura	Bankoura			0.35				2	1.12	6.06	5.60	6.08	3.89		
	Bishenpore							1	1.42	8.00	6.31	8.09	3.84		
	Malisra			0.38				2	1.19	5.97	4.97	3.07	3.55		
	Khatra							2	0.64	0.18	0.74	4.26	4.26	3.40	
	Jadas							2	0.12	1.54	1.66	4.39	4.39	4.39	
Beerbhoom	Kotalpore							2	0.78	1.62	2.37	7.84	7.84	7.84	
	Anda							2	0.69	0.69	1.59	4.84	4.84	4.84	
	Gangajajghati			2.08				2	0.68	2.76	5.77	5.77	5.77	5.77	
	Kaipore							1	0.94	7.29	7.29	7.29	7.29	7.29	
	Nonamukhi							1	0.78	3.16	3.16	3.16	3.16	3.16	
Nadd-a	Bh. Soory			0.45				3	2.02	3.18	5.04	5.11	3.46	3.46	
	Hetampore			2.15				3	2.89	3.92	4.14	3.92	2.80	2.80	
	Rampore Hant			1.80				2	0.21	4.79	5.34	4.47	3.67	3.67	
	Hotpore			1.60				2	0.75	5.11	5.11	5.11	5.11	5.11	
	Murari			0.20				2	0.40	2.00	2.00	2.23	2.23	2.23	
Khoolna	Ranaghat			0.65				3	0.88	5.28	7.28	4.83	4.90	4.90	
	Klahnaghat			0.11				3	1.22	6.49	7.28	6.39	4.43	4.43	
	Choodaanga					0.63	0.25	4	1.25	6.83	9.72	4.82	6.45	6.45	
	Meherpore					0.20		2	0.77	3.33	7.80	3.12	5.30	5.30	
	Kooshia		6.09					2	0.75	7.61	9.68	5.81	6.62	6.62	
Jessore	Satkha			0.05				3	1.20	9.29	8.87	9.25	5.58	5.58	
	Bagirhat			0.13	0.45			4	1.64	7.77	8.93	7.19	5.27	5.27	
	Khonla							2	0.45	6.18	8.62	4.68	4.76	4.76	
	Nakipore		1.85					3	4.18	13.04	13.04	13.04	13.04	13.04	
	Raupat		0.09	1.56			0.07	4	1.78	7.72	7.72	7.29	7.29	7.29	
Moorsheadabad	Narali							2	0.64	8.72	8.49	7.48	4.84	4.84	
	Jessore			0.08	0.02	0.43		4	0.77	6.96	9.22	8.80	5.90	5.90	
	Jhenidah							1	0.26	4.64	8.87	1.98	6.23	6.23	
	Magorah					0.03	0.64	3	0.55	6.80	10.63	4.87	4.89	4.89	
	Boukong						0.33	2	0.23	5.13	7.72	5.13	5.13	5.13	
Chittagong	Randi							2	0.39	5.79	6.24	2.11	4.28	4.28	
	Berhampore			0.06				1	0.06	1.82	7.23	0.57	5.19	5.19	
	Lalouah							Nil	Nil	2.03	7.32	1.94	5.08	5.08	
	Aimkunge							2	0.87	4.87	6.90	4.67	4.27	4.27	
	Jungipore			0.37			0.06	3	1.08	3.94	6.24	1.58	4.93	4.93	
East HEMMAL	Laigola							2	1.45	8.27	7.18	7.87	5.00	5.00	
	Jagunee							Nil	Nil	4.71	4.71	4.69	4.69	4.69	
	Akriyung			0.05			0.23	3	0.78	4.74	4.74	4.38	4.38	4.38	
	Potkabari							1	0.39	2.10	2.10	1.29	1.29	1.29	
	Chittagong														
Chittagong	Cox's Bazar			1.56				1	1.50	8.85	15.70	8.70	19.79	19.79	
	Chittagong			1.53				1	1.53	4.02	13.67	3.31	9.09	9.09	
	Antubdia			0.20											
	Nasabanga			0.31											
	Chittagong														
Hackerkunge	Rangmat		0.31					1	0.31	7.22	13.62	4.89	7.99	7.99	
	Ruma			0.61							13.39	13.39	8.42	8.42	
	Patunkhally						0.25	2	0.28	6.53	12.64	6.33	8.83	8.83	
	Paranpore							3	0.58	6.19	9.89	6.19	6.83	6.83	
	Burrisal						0.40	1	0.40	7.44	10.72	6.83	8.05	8.05	
Hackerkunge	Burrisal														
	Burrisal														
	Burrisal														
	Burrisal														
	Burrisal														

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 6th of June 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of May.	Average total rain-fall from 1st of May.	Total rain-fall from 15th May 1890.	Average rainfall from 15th May to date.
			Saturday, 31st May.	Sunday, 1st June.	Monday, 2nd June.	Tuesday, 3rd June.	Wednesday, 4th June.	Thursday, 5th June.	Friday, 6th June.	Number of rainy days.	of Rainfall week.				
EAST BENGAL —contd.	Noakholly	Gournaddi ..	.....	0.06	.....	.....	.....	.....	.....	1	0.06	7.06	?	.....	?
		Bauphal ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Noakholly ..	3.22	0.05	.....	.....	.....	.....	.....	2	2.27	10.92	14.72	7.36	9.56
		Penny ..	2.10	.....	.....	.....	0.24	.....	.....	2	2.34	10.65	10.72	8.69	10.57
	Furreedpore	Harishpore ..	1.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Ramganj ..	1.40	0.10	.....	.....	1.42	.....	.....	3	2.92	11.27	?	8.60	?
	Dacca	Madaripore ..	.....	.....	.....	.....	.....	.....	0.08	1	0.08	5.80	11.75	4.95	6.75
		Furreedpore ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.21	11.78	1.67	7.88
		Goalundo ..	1.02	0.52	.....	.....	0.05	.....	0.06	4	1.65	6.82	9.92	4.71	6.61
		Munshikunge ..	3.55	.....	0.17	.....	1.13	.....	.....	3	4.85	13.41	13.30	11.73	7.17
NORTH BENGAL.	Hill Tipperah	Dacca ..	2.02	0.13	0.04	.....	0.11	.....	1.12	5	4.02	14.67	11.61	9.84	6.87
		Narainkunge ..	3.19	.....	.....	.....	0.04	.....	0.02	3	3.25	13.35	9.78	10.93	5.23
		Manikgunge ..	0.68	0.26	.....	.....	0.40	.....	1.07	4	2.41	8.88	10.80	7.37	8.83
		Joydebpore ..	2.35	0.25	.....	.....	1.01	.....	0.29	4	3.90	14.40	?	19.68	?
	Tipperah	Akattola ..	0.92	.....	.....	.....	1.62	0.48	1.12	4	4.14	16.06	13.57	10.50	6.99
		Comilla ..	2.32	0.16	.....	.....	0.43	0.08	.....	4	2.99	11.11	14.08	7.94	6.28
		Chandpore ..	.....	.....	.....	.....	.....	1.27	.....	.....	.....	.....	12.03	6.05	7.90
		Brachmunberia ..	1.10	0.07	.....	.....	0.06	.....	0.18	4	2.31	11.50	13.66	6.10	7.90
	Mymensingh	Ramchandrapore ..	1.50	0.30	0.59	.....	0.62	0.04	0.19	6	3.24	11.50	?	6.31	?
		Nasirnagar ..	0.99	.....	.....	0.70	.....	0.59	1.30	4	3.49	17.44	?	9.64	?
Isaikhanda ..		0.31	.....	0.21	.....	0.91	.....	0.10	4	1.53	6.40	?	4.13	?	
Kasba ..		1.42	.....	.....	2.49	.....	.....	.....	2	3.91	16.20	?	8.78	?	
RAJSHAHY	Pubna	Laksham ..	2.05	.....	.....	.....	1.50	.....	.....	2	3.55	.....	?	?	?
		Kishoregunge ..	1.60	0.28	.....	.....	2.03	0.05	0.65	5	4.70	14.85	13.80	10.84	8.92
		Atia (Tangail) ..	4.26	0.23	0.11	.....	0.09	.....	4	4.79	15.35	9.25	12.22	5.43	?
		Mymensingh ..	1.00	0.27	0.38	.....	2.08	0.02	0.38	6	4.73	14.66	14.79	10.26	9.75
	Bogra	Jamulpore ..	.....	1.08	0.10	.....	1.70	.....	0.87	4	3.73	13.06	11.67	9.36	7.04
		Netrokona ..	1.06	0.16	0.26	.....	1.36	.....	1.57	5	5.01	13.12	11.98	10.12	9.69
		Subornakhali ..	1.20	.....	.....	.....	.....	.....	.....	1	1.20	9.18	?	7.75	?
		Durgapore ..	2.40	1.20	.....	.....	3.70	1.00	2.40	5	10.70	22.03	?	13.33	?
	Dinagapore	Sherepore ..	1.41	0.32	0.14	.....	1.02	.....	0.73	5	3.52	11.50	?	8.03	?
		Durgapore ..	0.60	.....	.....	.....	1.14	.....	2.70	3	4.54	15.98	?	12.98	?
Bogra		Pubna ..	0.88	0.30	.....	.....	0.63	.....	.....	3	2.40	6.34	9.18	5.03	5.89
		Sorajkund ..	2.89	0.30	0.24	.....	0.85	.....	.....	4	4.28	12.53	9.98	10.20	6.71
	Mymensingh	Sherepore ..	0.58	0.83	0.26	.....	1.11	.....	.....	4	2.88	7.13	10.76	6.09	7.35
		Nowknilia ..	0.50	0.06	0.67	.....	1.02	.....	.....	4	3.15	12.88	9.92	8.44	6.78
Bogra ..		0.25	0.22	.....	.....	1.66	.....	.....	3	2.83	7.45	11.31	6.62	7.78	
Panchbibi ..		0.41	1.25	.....	.....	1.60	0.05	.....	4	3.31	8.68	10.36	6.66	7.46	
RAJSHAHY	Rajshahy	Semaulah ..	0.23	0.01	0.28	.....	.....	.....	.....	3	0.52	3.98	7.27	3.77	4.93
		Natore ..	.....	1.40	.....	.....	0.40	.....	1.03	3	2.84	10.18	8.49	9.63	3.24
		Naogaon ..	.....	0.79	.....	.....	1.39	0.20	.....	3	2.29	8.42	6.78	6.12	8.24
		Lalpor ..	0.16	.....	0.18	.....	.....	.....	.....	2	0.34	5.20	?	3.18	?
	Maldah	Mando ..	.....	.....	0.30	.....	.....	.....	.....	1	0.30	4.12	?	2.24	?
		Maldah ..	.....	.....	0.93	.....	.....	.....	.....	1	0.93	5.65	5.55	4.18	3.73
		Chanchal ..	.....	.....	0.19	.....	0.18	0.07	.....	2	0.44	4.99	6.32	2.04	4.61
		Gajol ..	.....	0.45	.....	.....	.....	.....	.....	1	0.35	3.82	?	2.40	?
	Dinagapore	Sibganj ..	0.60	1.80	.....	.....	.....	.....	0.02	3	2.12	7.64	?	6.66	?
		Mohadehpore ..	0.13	0.43	.....	.....	1.05	.....	.....	3	2.21	8.20	9.17	5.10	6.58
Churamon ..		0.37	0.16	.....	.....	0.74	.....	0.08	4	1.35	6.47	6.06	3.39	5.07	
Raigunge ..		.....	0.45	.....	.....	0.40	1.02	.....	3	1.90	6.50	8.10	4.64	5.91	
RAJSHAHY	Rangpore	Dinagapore ..	0.28	3.10	.....	.....	1.04	3.58	.....	4	8.90	16.24	9.32	13.90	7.25
		Raigunge ..	.....	1.06	.....	.....	1.74	.....	.....	2	2.80	5.96	7.09	6.73	6.72
		Raigungehat ..	.....	2.16	0.31	2.74	1.66	1.16	0.37	6	8.50	16.93	?	10.45	?
		Thakurgaon ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rangpore	Bhawaniganje ..	0.25	1.90	.....	1.70	4.73	0.13	1.15	6	9.88	20.32	12.32	14.20	8.89
		(Gyabanda) ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Rangpore ..	0.60	0.25	0.06	2.51	3.73	1.57	1.10	7	9.33	18.07	13.81	12.20	10.54
		Kurigram ..	0.35	0.11	0.04	1.26	4.49	2.51	1.57	7	10.33	17.27	17.88	13.57	12.47
	Jalpigore	Rangpore ..	0.21	.....	0.76	1.87	4.58	0.91	1.20	6	9.63	17.28	14.77	15.16	11.65
		Haldogra ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
(Nilphamari) ..		.....	0.75	.....	3.11	3.73	.....	0.84	4	8.45	24.44	?	15.79	?	
Ulupore ..		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RAJSHAHY	Jalpigore	Ulupore ..	0.85	0.82	0.07	0.63	1.12	3.95	1.60	7	9.68	15.72	16.17	11.60	11.88
		Alipore ..	0.07	2.40	1.06	0.54	0.69	7.23	2.55	7	14.63	21.00	?	17.62	?
		Alipore Dooan ..	.....	1.05	0.68	1.72	0.48	3.63	3.35	6	12.31	17.03	?	14.44	?
		Falacotta ..	.....	0.17	1.75	0.33	2.50	2.08	2.10	6	8.93	18.64	?	15.94	?
	Cooch Behar	Debtganj ..	0.94	0.97	0.56	0.11	1.67	0.87	0.37	7	5.69	15.44	?	11.61	?
		Bhagatpore ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		(Nagrakatta) ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Cooch Behar ..	0.15	0.45	0.55	0.38	2.52	4.91	5.18	7	14.14	20.34	19.05	16.89	14.78
	Darjeeling	Dinhata ..	1.02	0.06	0.45	0.60	1.93	3.75	5.63	7	13.44	19.49	20.52	17.14	14.77
		Cooch Behar ..	.....	0.18	0.02	0.15	0.21	3.04	7.32	6	10.92	20.68	15.38	13.87	11.87
Miekliganje ..		0.34	0.10	0.11	1.10	2.71	7.91	4.72	7	16.09	24.13	16.32	20.56	12.82	
Maachhang ..		3.34	2.47	0.86	0.57	1.67	6.86	2.28	7	18.05	23.14	26.09	21.01	19.42	
RAJSHAHY	Darjeeling	Buxa ..	0.15	1.04	0.04	0.18	0.80	1.99	0.72	7	5.61	14.06	11.15	11.67	8.40
		Siliguri ..	0.13	0.17	.....	0.90	0.28	0.11	0.63	6	2.28	8.26	10.84	5.60	6.73
		Darjeeling ..	0.65	0.23	0.02	0.05	0.25	0.36	0.96	7	1.62	4.94	6.86	3.15	5.09
		Kalimpong ..	0.45	0.21	.....	0.17	0.48	0.85	0.05	6	2.21	12.17	?	8.92	?
	Purneah	Kurseong ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Kisntung ..	0.05	0.55	0.18	3.25	0.53	.....	0.07	6	4.43	7.89	7.89	5.32	5.64
		Arrareah ..	.....	.....	.....	.....	0.82	.....	.....	1	0.82	0.82	7.97	3.95	4.67
		Purneah ..	0.88	0.98	.....	.....	1.16	.....	.....	3	2.72	6.56	5.82	4.78	4.33
	North Bhagalpore	Gondwara ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	?	?	?	?
		Balarampore ..	1.00	.....	.....	.....	1.00	.....	.....	.....	.....	.....	.....	.....	.....
Matiari ..		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kaliaganj ..		0.74	0.17	.....	0.20	0.63	3.47	2.10	6	7.31	11.96	?	8.60	2.05	
RAJSHAHY	Durbhunga	Maddapore ..	.....	.....	.....	.....	0.54	.....	Nil	Nil	3.30	4.65	2.30	2.05	
		Boopool ..	0.06	.....	.....	.....	.....	.....	.....	2	0.60	2.78	4.79	1.06	3.98
		Protoganj ..	0.10	.....	.....	0.38	.....	.....	.....	3	0.48	1.56	?	1.06	?
		Tajpore ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	1.48	2.68	0.68	1.40
	Mozasarpore	Durbhunga ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	2.30	3.20	1.93	1.93
		Madhubani ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	3.25	3.31	1.75	2.25
		Bahera ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	2.85	?	2.21	?
		Koshera ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	0.60	?	0.60	?
	Mozasarpore	Sitamardi ..	.....	.....	.....	.....	0.06	.....	.....	1	0.06	2.55	3.39	1.85	2.18
		Mozasarpore ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	1.43	3.28	0.88	1.98
Hajipore ..		.....	.....	.....	.....	.....	.....	.....	Nil	Nil	3.89	2.20	2.96	1.43	
Pura ..		.....	.....	.....	.....	.....	.....	.....	Nil	Nil	1.65	?	0.63	?	
RAJSHAHY	Mozasarpore	Mohua ..	.....	.....	.....	.....	.....	.....	Nil	Nil	2.53	?	0.83	?	
		Siukar ..	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	?	?	?	?
		Pupri ..	.....	.....	.....	.....	.....	.....	.....	1	0.30	1.82	?	1.11	?
	
	Mozasarpore	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	
	
				

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 6th of June 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall since 1st of May.	Average total rain-fall from 1st of May.	Total rain-fall since 15th May 1890.	Average rainfall from 15th May to date.
			Saturday, 31st May.	Sunday, 1st June.	Monday, 2nd June.	Tuesday, 3rd June.	Wednesday, 4th June.	Thursday, 5th June.	Friday, 6th June.	Number rainy days.	of Rainfall week.				
NORTH BHAR.	Chumparun.	Motihari	...	...	...	...	...	...	...	NH	NH	7.09	3.41	6.49	2.35
		Bettiah	...	...	...	...	...	...	...	NH	NH	1.00	5.81	0.93	1.94
		Bagaha	...	...	0.13	0.84	...	...	...	2	0.97	1.72	?	1.80	?
		Burhura	...	...	...	...	...	...	...	NH	NH	2.97	?	1.53	?
SOUTH BHAR.	Sarun.	Gopalgunge	...	...	...	...	...	...	...	NH	NH	1.64	2.14	1.59	1.74
		Sewan	...	...	...	...	...	...	...	NH	NH	1.71	2.17	1.51	1.47
		Chuprah	...	...	...	...	...	...	...	NH	NH	2.91	1.74	1.99	1.17
		Buxar	...	...	...	...	...	...	...	NH	NH	1.69	1.08	1.24	0.71
	Shahabad.	Dehree	...	...	...	...	...	...	...	NH	NH	NH	1.48	NH	1.23
		Rhahooah	...	...	...	...	...	...	...	NH	NH	NH	1.41	NH	0.85
		Sasseram	...	...	...	...	...	0.02	0.45	2	0.48	0.35	1.39	0.74	0.1
		Arrah	...	...	...	...	...	...	...	NH	NH	0.51	1.95	1.44	1.33
	Gya.	Mohaniah	...	...	...	...	...	...	...	NH	NH	NH	?	NH	?
		Aurungabad	...	...	...	...	...	...	...	NH	NH	0.34	1.89	0.34	1.32
		Gya	0.01	...	...	...	...	...	...	1	0.01	0.31	1.88	0.31	1.33
		Nowadah	...	...	...	...	...	...	...	NH	NH	1.18	2.39	1.03	1.77
CENTRAL NAG-PUR.	Patna.	Jehanabad	...	...	...	...	...	...	...	NH	NH	2.35	2.12	2.26	1.67
		Arwal	...	...	...	...	...	...	...	NH	NH	1.36	?	0.89	?
		Daudnagar	...	...	...	...	...	...	...	NH	NH	0.27	?	0.27	?
		Sherrghati	...	...	...	...	...	...	...	NH	NH	NH	?	NH	?
	Monghyr.	Rajauli	...	...	...	...	...	...	...	NH	NH	NH	?	NH	?
		PakriBaruan	...	...	...	...	...	...	...	NH	NH	0.35	?	0.35	?
		Patna	...	...	...	...	...	...	...	NH	NH	2.39	2.46	1.47	1.85
		Imnapore	...	...	...	...	...	...	...	NH	NH	3.23	1.89	1.92	1.44
	South Bhagulpore.	Rehar	...	...	...	...	...	...	...	NH	NH	1.07	2.56	1.07	1.31
		Barth	...	...	...	...	...	...	...	NH	NH	1.03	2.65	0.79	1.32
		Bickram	...	...	...	...	...	...	...	NH	NH	1.03	?	1.03	?
		Hilsa	...	...	...	...	...	...	...	NH	NH	2.23	?	2.23	?
	Sonthal Pergunnahs.	Begoweral	...	...	...	...	0.15	...	...	1	0.15	2.73	2.69	1.38	1.56
		Monghyr	...	...	...	...	...	...	...	NH	NH	4.13	2.04	2.00	2.26
		Jamui	...	...	...	...	...	...	...	NH	NH	1.20	?	1.20	1.74
		Gopri	...	...	...	...	...	...	...	NH	NH	4.39	?	1.94	?
	Lohardugga.	Saktipura	...	...	...	...	...	...	...	NH	NH	0.30	?	0.30	?
		Bhagalpore	...	...	...	...	...	0.14	...	1	0.14	4.61	3.18	2.47	2.20
		Ranka	...	...	...	...	...	...	...	1	0.14	4.65	3.37	3.02	2.55
		Kolgaon	...	...	0.34	...	...	...	...	NH	NH	3.91	?	2.01	?
	Singbhoom.	Bongson	...	...	...	...	...	...	...	NH	NH	2.39	?	1.10	?
		Rajmahal	...	...	0.39	...	...	0.05	...	2	0.44	3.62	5.35	2.54	3.80
		Godda	...	...	0.95	...	...	...	...	1	0.95	5.76	4.34	4.10	3.17
		Pakur	0.35	...	1.45	...	...	...	...	3	1.91	7.45	6.03	4.79	4.76
	Manbhoom.	Nya Doomka	...	...	0.65	...	...	0.05	...	3	1.08	3.10	4.41	3.03	2.23
		Deoghar	...	...	...	...	0.12	...	...	1	0.12	2.01	3.78	2.27	2.59
		Jamtara	...	0.03	0.26	...	...	0.05	...	3	0.34	2.44	4.55	2.23	3.10
		Mohagama	...	0.25	...	...	...	...	...	1	0.25	2.02	?	0.77	?
	Hazariabagh.	Namhat	...	...	...	...	...	0.31	...	1	0.31	0.90	?	0.90	?
		Pachamba	...	...	...	...	...	0.78	...	1	0.78	2.31	3.04	2.16	2.31
		(Giridi)	...	...	...	...	...	...	...	3	0.17	1.23	3.10	1.33	2.31
		Hazariabagh	...	...	...	0.02	0.11	...	0.04	NH	NH	1.07	3.34	0.46	2.34
	Lohardugga.	Semtagurah	...	...	...	...	...	...	...	NH	NH	2.96	?	2.96	?
		Mahudi Hills	...	...	...	...	...	...	...	NH	NH	0.20	3.18	?	1.94
		Jhoomra Hills	...	...	...	...	...	...	...	NH	NH	0.77	?	0.77	?
		Barhi	...	...	...	...	...	...	...	1	0.22	1.92	?	1.92	?
	Singbhoom.	Chaitra	...	...	...	...	...	...	...	1	0.07	2.00	?	2.00	?
		Karagdeha	...	...	...	...	...	0.67	...	NH	NH	3.90	?	2.35	?
		Ronghar	...	...	...	...	...	...	...	1	0.17	0.93	2.81	0.38	2.42
		Lohardugga	...	...	...	...	0.17	...	...	1	0.17	3.45	4.05	2.55	2.91
	Singbhoom.	Ranchi	...	...	...	...	...	0.15	...	1	0.15	1.02	1.68	1.52	1.34
		Palanow	...	...	...	...	...	...	0.04	1	0.04	?	?	?	?
		Silt	...	...	...	...	...	...	...	1	0.04	?	?	?	?
		Balsmat	...	...	...	...	...	...	...	NH	NH	0.15	?	0.15	?
	Singbhoom.	Hazariabagh	...	...	...	...	...	...	...	NH	NH	0.15	?	0.15	?
		Garonah	...	...	...	...	...	...	...	2	0.25	4.31	4.97	3.15	3.37
		Chyokasa	...	0.19	...	0.02	...	...	...	2	0.21	?	?	?	?
		Chakradhar	...	...	...	...	...	...	...	2	0.73	5.16	?	3.41	?
	Manbhoom.	Chaitilla	...	...	...	...	0.28	0.45	...	2	0.40	5.23	?	3.37	?
		Baharagura	...	...	...	...	...	0.25	...	2	0.40	5.23	?	3.37	?
		Parulia	...	...	...	...	...	...	0.31	2	0.85	4.22	4.49	3.47	2.99
		Gobindpore	...	...	...	...	...	0.17	0.08	4	0.31	0.83	5.14	0.85	2.42
	Singbhoom.	Kashunath	...	...	...	...	0.19	...	0.01	2	0.20	2.64	?	2.29	?
		pore.	...	...	...	...	...	...	...	1	0.15	4.38	?	4.38	?
		Barrabhoom	...	...	...	...	...	0.15	...	1	0.15	2.97	?	2.97	?
		Jhalda	...	...	...	...	0.21	...	...	1	0.21	2.97	?	2.97	?
	Singbhoom.	Chas	...	...	...	...	1.47	...	0.02	2	1.49	3.27	?	2.77	?

Explanation.—... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 11th June, 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVA-
TIONS TAKEN IN ASSAM, FOR THE WEEK ENDING FRIDAY, THE
6TH OF JUNE 1890.**

DULL cloudy weather has prevailed throughout the week in all districts except in the extreme west, where the sky has been fairly clear and temperature very high. The pressure distribution has been similar to that of the previous two weeks, lower in Behar, but the gradients over Bengal have been steeper, and hence stronger winds have been blowing; but the directions have hardly changed, the usual steady southerly current blowing in Lower Bengal and easterly in North Bengal and Behar, while the westerly winds blowing over Chutia Nagpur have at times reached the more western stations of South Behar and caused the clear skies and high temperature in these parts. Heavy continuous rain has fallen in North Bengal and in parts of East Bengal, so that in the former of these districts almost double the average has been received, but in the latter, the heavy rain not having been so general, the mean fall is considerably below the normal. Scattered rain fell in all districts during the greater part of the week, the exceptions being South Behar, Orissa, and the western districts of Chutia Nagpur. On the 31st of May, the first day of the week, lowest pressure was over South Behar, the greatest difference of pressure on the east and west of the province being nearly two-tenths of an inch, and strong south-easterly winds were blowing in East Bengal. Heavy rain fell on this day at all the eastern stations, especially at Comillah, Dacca, and Serajgunge. Temperature was considerably below the normal in East Bengal and Orissa, and as much above in the west of Behar, so that the differences of pressure as well as of temperature were favourable to strong easterly winds. On the following day pressure rose, the differences of temperature increased, there being a large excess in Behar, and rainfall was heavy at Rangpore only. The general rise of pressure continued till the 3rd of June, when it was everywhere above the normal, and during these days rainfall was almost entirely confined to the eastern districts, where it was lighter than during the first and last three days of the week. On the 4th a rapid fall of pressure set in and unsettled conditions became more pronounced, wind directions being rather irregular and very heavy rain falling in North Bengal. The depression which began to form in Behar intensified on the 5th, and the difference of pressure from west to east increased to a quarter of an inch. The wind circulation did not change beyond the increase of velocity, but rainfall was much more general and very heavy in Assam and the adjacent districts of North Bengal, Julpigoree, and Dhubri, each receiving four inches. The area of lowest pressure on the 5th was in the form of a narrow trough covering the greater part of the northern half of South Behar and extending as far east as Bhagulpore. It began to fill up on the 6th, but pressure was still considerably below the normal in North Behar and North Bengal, and the rainfall, still very heavy in Assam and North Bengal, was more general in the southern districts, especially South-West Bengal.

Pressure—Was below the average at the beginning of the week, but it rose during the first three days of June till there was a considerable excess, after which a very rapid fall set in, resulting in a marked depression over Behar, pressure at the lowest part being under 29.45 inches. Defect in South Behar was then over .15 inch, and it diminished towards the south, till at the head of the Bay the difference from the normal at the coast stations in the north-west corner of the Bay was very trifling. The most rapid fall was on the 5th, exceeding .17 inch at Julpigoree and Dhubri and .1 inch in all districts except Orissa and South-West Bengal. At the end of the week pressure had commenced to rise, but it was under 29.5 inches over the greater part of Behar, and a large defect still remained. The means for the week are about a twentieth of an inch below the normal in Behar, slightly below in Chutia Nagpur, North Bengal, part of South-West Bengal and Assam, and above in the other districts.

Temperature—Was very nearly 5° above the normal in Behar and about as much below in East Bengal during the early part of the week, while in the intermediate districts the differences from the normal were generally small. While the rainfall continued in East Bengal and westerly winds were blowing in Behar, this distribution intensified, but on the 2nd of June there was excess everywhere except in North Bengal, the largest being 7.5° at Dehree. On the 3rd temperature rose almost everywhere, but with the commencement of unsettled weather on the 4th, a very rapid fall set in over North Bengal and part of East Bengal with slower downward changes in almost all districts. On the 5th and 6th very irregular and in some cases large changes occurred—on the 5th in North Bengal and on the 6th in South-West Bengal, but in the west of Behar excess was never below 5°. The means for the large divisions are all above the normal except North Bengal and Assam, defect in the latter being nearly 3°. Excess in South Behar is 4.3°, in Chutia Nagpur 2.4°, and in the other districts about 1°.

Rainfall—Has been chiefly confined to East and North Bengal, but during the last three days of the week light and fairly general rain fell in all parts except towards the west, where it has been almost entirely absent. On the 31st of May very heavy rain fell in East Bengal several stations receiving three inches. On the 1st and 2nd of June light general rain was falling in the eastern half of the province, but on the 3rd it again became heavier in the north-east, five inches falling at Dhubri. On the three last days very heavy rain was continuous in North Bengal, and light showers in nearly all districts. During these days

9 inches fell at Dhubri, 8 inches at Julpigoree, and 5 inches at Rungpore. The mean fall for North Bengal is 5·8 inches, nearly double the normal, but in all the other districts there is considerable defect, amounting in East Bengal to 1·3 inches, in Orissa, Chutia Nagpur, and South-West Bengal to about half an inch, and in Behar to a third of an inch. The very heavy rainfall in North Bengal has been largely confined to the Rungpore, Julpigoree, and Cooch Behar districts, the average in the last being very nearly 15 inches, and the heaviest fall recorded 18 inches at Buxa.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 6th of June 1890 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.										RAINFALL.																																						
	Highest observed during week.		Lowest observed during week.		Averages for week.					Average mean of week above or below normal mean of week.		Of week.			Rainy days.			Since 1st of May.		Since 15th May 1890.																													
Of highest of each day.					Of lowest of each day.					Of mean for each day.																																							
Average.					Normal average.					Variation.					Average number in week.					Normal average number in week.					Variation.					Average.					Normal average.					Average.					Normal average.				
Orissa	108°4	70°1	94°2	81°7	88°3	+1°0	0°54	1°07	-0°53	1°0	1°7	-0°7	4°14	4°85	3°61	3°15																																	
South-West Bengal ...	104°5	71°2	90°6	79°6	88°1	+0°9	1°29	1°00	-0°61	2°2	2°5	-0°3	5°00	7°15	5°39	4°40																																	
East Bengal	94°5	69°2	88°9	76°7	82°8	+0°6	2°43	3°71	-1°28	2°9	3°7	-0°8	10°37	12°63	7°88	7°70																																	
North Bengal	96°9	65°6	89°4	74°7	82°1	-0°9	5°83	5°25	+2°58	4°4	5°1	+1°3	12°32	11°33	9°48	8°26																																	
North Behar	102°4	70°4	90°8	78°0	87°4	+0°8	0°54	0°84	-0°30	0°8	1°3	-0°5	3°51	3°91	2°51	2°36																																	
South Behar	110°6	71°8	103°5	82°6	93°1	+4°0	0°25	0°00	-0°35	0°8	1°2	-0°4	2°51	2°87	1°77	2°07																																	
Chutia Nagpur	103°5*	72°4*	100°1*	78°1*	89°1*	+2°4*	0°28	0°77	-0°49	1°5	1°7	-0°2	1°98	3°34	1°48	2°41																																	
Assam	92°5	70°8	85°3	73°9	79°6	-2°7																																											

* Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL ;
The 10th June 1890.

C. LITTLE,
Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from
1st to 7th June 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
June	1st	149.3	5.5	29.593	88.3	95.7	13.8	81.9	82.1	1.017	79.7	77	S, SSE and variable	177	0.06	Partially cloudy, o, g, d, t. <
"	2nd	153.4	6.6	.645	87.4	95.5	18.8	76.7	81.5	0.990	79.2	78	S and SSW	140	Not measurable	Partially cloudy, d.
"	3rd	148.0	7.7	.654	88.1	94.4	14.0	80.4	81.7	.996	79.1	76	SSW and S	176	Nil	Partially cloudy.
"	4th	144.6	0.9	.587	84.8	91.0	12.0	79.0	79.9	.958	77.9	80	S, SSW and variable	210	0.22	Chiefly cloudy, o, d, t, p, <
"	5th	144.7	6.2	.509	87.3	93.0	15.4	77.6	81.8	1.016	79.7	79	SSW and variable	219	Nil	Partially cloudy, o, <.
"	6th	134.5	Nil	.521	81.9	87.5	16.1	71.4	77.3	0.879	75.3	80	SSW	94	2.35	Cloudy, o, g, t, p.
"	7th	142.5	4.0	.537	86.1	90.9	11.8	79.1	81.2	.996	79.1	81	S by E, SSW and SSE.	162	Nil	Partially cloudy, o.

The mean pressure of the seven days ... 29.578
 The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29.583

The total number of hours of bright sunshine ... 30.9
 The maximum possible number of hours of sunshine ... 93.8

The mean temperature of the seven days ... 86.3
 The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 86.5
 The extreme variation of temperature ... 24.3
 The maximum temperature ... 95.7

The highest velocity of the wind in one hour ... 19

The highest pressure of wind on one square foot ... Approximately 9

The mean relative humidity ... 79
 The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 77

The total fall of rain from 1st to 7th June 1890 ... 2.62
 The average fall of the corresponding period for 24 years, S.-G.'s Office ... 1.73
 The total fall from 1st January to 7th June 1890 ... 10.66
 The average fall of the corresponding period for 24 years, S.-G.'s Office ... 11.31

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.
 The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, d drizzling rain, t thunder, < lighting, p passing temporary showers.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;
 Calcutta, the 9th June 1890.

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of May 1890.

	Inches.	Date.
The mean pressure at 10 A.M. during the month ...	29.702	
The mean temperature at 10 A.M. during the month ...	90.1	
The highest temperature during the month ...	106.2	8th.
The lowest temperature during the month ...	69.6	16th.
The absolute range of temperature during the month ...	36.6	
The mean daily range of temperature during the month ...	18.9	
The greatest range of temperature in one day during the month ...	25.2	8th.
The mean 10 A.M. humidity during the month ...	68	%
The mean 10 A.M. vapour pressure during the month ...	0.955	Inches.
The total rainfall of the month ...	4.11	
The greatest fall in 24 hours ...	0.96	22nd.
The number of rainy days in the month ...	11	Days.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,
The 9th June 1890.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 1st to 7th June 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall per 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
June 1890...	1st	29.629	89.9	97.0	14.2	82.8	93.4	84.3	1.055	80.9	67	...
" "	2nd	691	87.5	97.0	19.0	78.0	92.1	83.5	1.033	80.2	69	0.07
" "	3rd	711	89.4	97.0	15.2	81.8	90.6	83.5	1.053	80.3	74	...
" "	4th	652	87.2	99.0	11.6	81.4	92.6	83.5	1.025	80.0	67	...
" "	5th	566	86.7	95.0	16.6	78.4	91.0	84.5	1.098	82.1	76	0.43
" "	6th	585	81.3	90.4	17.2	72.2	84.6	78.7	.902	76.1	76	2.21
" "	7th	610	86.6	93.2	13.2	80.0	89.4	82.9	1.038	80.4	75	...

The mean 10 A.M. pressure of the seven days ... 29.635

The mean temperature of the seven days ... 86.9

The extreme variation of temperature ... 24.8

The maximum temperature ... 97.0

The mean 10 A.M. relative humidity of the seven days ... 72

The total fall of rain from 1st to 6th June 1890 ... 2.71

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA ;
The 9th June 1890.

MEMORANDUM.

DURING the month of March 1890, the total number of deaths registered in the 45 districts in Bengal amounted to 128,751, or at the rate of 23.16 per 1,000 among a population of 65,859,534, against 112,524, or 20.40 per 1,000 in the preceding month, 113,505, or 20.64 per 1,000 in March 1889, and an average of 109,778, or 19.92 per 1,000 in the corresponding month of the past five years 1885-89. There was thus a considerable increase of mortality in March 1890 than in the three corresponding periods of past years.

The following districts returned the highest proportions of deaths. For comparison the mortality in the same districts during the corresponding month of 1889 is also shown:—

Districts.		Ratio per mille during—		Districts.		Ratio per mille during—	
		March 1890.	March 1889.			March 1890.	March 1889.
Darjiling	...	41.64	28.08	Cuttack	...	30.36	17.16
Poori	...	37.44	22.20	Hughli	...	29.28	22.68
Julpaiguri	...	37.32	26.28	Rungpore	...	28.92	25.68
Noakhali	...	36.24	33.72	Howrah	...	26.16	22.08
Bhagulpore	...	35.88	17.76	Rajshahye	...	26.04	21.84
Dinajpur	...	32.74	27.84	Durbhanga	...	25.92	11.40
Backerganj	...	32.64	48.12	Midnapore	...	25.32	21.12
Birbhum	...	31.56	24.60				

The table below exhibits the rates at which the population suffered from the various registered death-causes in March 1890 as compared with the corresponding month of the preceding year and the average rate of 1885-89.

			Ratio per mille during—		
			March 1890.	March 1889.	Mean of previous five years, 1885-89.
Cholera	...	...	2.64	3.24	2.04
Small-pox	...	...	.36	.12	.12
Fever	...	...	16.08	13.20	13.92
Bowel-complaints	...	...	.60	.60	.72
Injury	...	...	.24	.24	.24
Other causes	...	...	3.12	3.00	2.76

It will be seen that the death-rate of March 1890, under the head small-pox is thrice as great as that of the two past periods. Under the head fever, there was, as usual, a considerable increase of mortality in March 1890, than the past periods with which that month is compared.

The districts in which the greatest loss of life occurred from cholera, small-pox, fever and the maladies coming under the head "other causes" are:—

Cholera.		Small-pox.		Fever.		Other causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Bhagulpore	13.68	Poori	2.76	Julpaiguri	35.64	Poori	12.84
Poori	13.56	Chumparun	1.56	Darjiling	31.08		
Noakhali	9.60	Patna	1.44	Dinajpur	30.24		
Backerganj	8.28			Rungpore	26.40		
Cuttack	6.60			Rajshahye	23.62		
Tipperah	6.48			Noakhali	22.68		
Faridpore	6.36			Birbhum	21.12		
Durbhanga	5.04			Hughli	21.12		
Dacca	4.08			Purneah	21.12		
21-Pergunnahs	3.36			Bogra	20.28		
Khulna	3.00						
Howrah	2.88						
Jessore	2.76						
Midnapore	2.64						
Mymensing	2.64						
Birbhum	2.28						
Chumparun	2.28						
Monghyr	2.28						
Balasore	2.28						

The mortality of the month, under review, according to sex, class and age, was distributed as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	26.04	Christians	17.28	Under 1 year	150.48
Females	20.76	Hindus	23.64	1 and under 5 years	23.28
Ratio of male deaths to every 100 female deaths calculated on the proportion such mortality bears to the total male and female population	125	Mahomedans	23.52	5 " 10 "	11.16
		Buddhists	17.76	10 " 15 "	9.96
		Other classes	15.60	15 " 20 "	15.24
				20 " 30 "	15.60
				30 " 40 "	18.24
				40 " 50 "	24.48
				50 " 60 "	36.60
				60 years and upwards	59.76

W. H. GREGG, *Dip. Publ. Health, Camb.,*
Sanitary Commissioner for Bengal.

The 5th June 1890.

Statement showing the Results of the Registration of Deaths in the Districts in Bengal for the month of March 1890.

DIVISIONS.	DISTRICTS.	POPULATION.			MORTALITY ACCORDING TO—										SEX.				
		Males.	Females.	Total.	DISEASE.										Males.	Females.	Ratio of male deaths to every 100 female deaths.		
					RATIO PER 1,000 OF POPULATION PER ANNUM.														
					DEATHS FROM—														
Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Ratio of deaths per 1,000 of population in the previous month.	Ratio of deaths per 1,000 of population in the corresponding month of the previous year.	Males.	Females.		
BURDWAN.	Burdwan	608,295	725,528	1,333,823	123	43	1,072	46	14	481	2,081	1.80	1.80	1,438	1,261	22.50	25.50	35.50	30.29
	Bhadrabad	507,136	634,616	1,141,752	42	22	1,114	41	10	395	1,535	1.48	1.48	858	617	22.44	22.44	31.00	21.72
	Bhadrabad	381,563	412,965	794,528	105	16	1,402	19	40	508	2,090	2.75	2.75	1,122	905	18.90	18.90	27.50	15.00
	Hughli	1,272,870	1,372,870	2,645,740	667	229	2,500	240	54	1,068	3,938	3.60	3.60	2,455	2,483	29.20	29.20	37.16	25.04
BURDWAN.	Burdwan	315,085	347,565	662,650	48	32	1,171	125	42	220	1,634	1.84	1.84	856	701	21.05	21.05	31.52	26.52
	Bhadrabad	177,559	177,559	355,118	31	15	435	83	17	77	600	1.06	1.06	495	354	17.64	17.64	27.81	19.98
	Total (Hughli including Serampore).	490,031	524,974	1,015,005	79	47	1,035	210	39	603	2,314	1.84	1.84	1,452	1,052	29.61	29.61	29.81	24.90
RAJSHAHY.	Howrah	318,479	318,479	636,958	153	88	1,435	247	20	276	1,830	2.85	2.85	1,012	836	22.95	22.95	29.60	21.72
	24-Pargunnahs	800,841	812,321	1,613,162	481	103	2,439	195	31	575	3,014	1.85	1.85	1,912	1,502	18.24	18.24	27.45	21.72
	Nuddea	800,841	812,321	1,613,162	481	103	2,439	195	31	575	3,014	1.85	1.85	1,912	1,502	18.24	18.24	27.45	21.72
	Jessore	800,841	812,321	1,613,162	481	103	2,439	195	31	575	3,014	1.85	1.85	1,912	1,502	18.24	18.24	27.45	21.72
Dacca.	Murshidabad	586,453	646,307	1,232,760	89	48	1,842	19	21	233	2,075	1.84	1.84	1,162	931	19.80	19.80	27.96	21.96
	Dumra	586,453	646,307	1,232,760	89	48	1,842	19	21	233	2,075	1.84	1.84	1,162	931	19.80	19.80	27.96	21.96
	Rajshahy	782,292	732,054	1,514,346	472	43	1,888	83	33	318	2,206	2.08	2.08	1,169	953	25.30	25.30	24.48	20.94
	Rangpore	600,718	678,893	1,279,611	73	18	2,628	8	23	259	2,907	2.62	2.62	1,201	1,017	27.84	27.84	36.96	28.20
CHITTAGONG.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
PATNA.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
CHITTAGONG.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
PATNA.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
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CHITTAGONG.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
PATNA.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
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	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
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	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
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	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
CHITTAGONG.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
PATNA.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
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	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1	4.1	215	144	44.4	44.4	51.12	37.94
CHITTAGONG.	Burdwan	1,067,791	1,000,293	2,068,084	157	7	4,629	5	0	269	5,077	6.6	6.6	3,040	2,441	34.75	34.75	56.92	35.16
	Bhadrabad	372,193	381,200	753,393	17	2	1,544	4	15	172	1,441	1.0	1.0	73	59	21.60	21.60	31.92	25.92
	Fatma	648,311	605,417	1,253,728	89	2	2,095	7	15	86	2,249	1.2	1.2	1,012	811	20.25	20.25	29.76	22.6
	Chittagong	58,351	66,294	124,645	2	1	404	40	15	55	534	4.1							

		MORTALITY ACCORDING TO—										AGE.										RATIO PER 1,000 OF POPULATION PER ANNUM.									
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		CLASS.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.									
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		CLASS.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.									
		CLASS.																													

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.OFFICE OF SANITARY COMMISSIONER FOR BENGAL,
The 11th June 1890.

MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 24th May 1890.

BIRTHS.

The births registered during the week ending with Saturday, the 24th May 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 14.5 per 1,000 of the aggregate population of those towns, which is 1,061,574. This rate is 3.3 lower than the average rate of the corresponding week of the past five years, and is also lower than the rate of the corresponding week of any of the past five years, with which comparison is instituted, *vide* the figures below—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years 1885-89.	1890.
Ratio of births per 1,000 of the population per annum	21.2	15.1	16.9	19.1	16.8	17.8	14.5

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	3rd May 1890.	10th May 1890.	17th May 1890.	24th May 1890.		3rd May 1890.	10th May 1890.	17th May 1890.	24th May 1890.
Burdwan	9.2	18.3	18.3	16.8	Narainganj	20.7	24.8	20.7	20.7
Midnapore	12.4	6.2	23.2	15.3	Chittagong	9.4	16.4	21.1	7.0
Hughli and Chinsurah	23.0	24.6	24.6	21.3	Comilla	42.4	50.1	19.3	11.6
Serampore	18.7	17.7	21.6	21.6	Patna City	6.5	7.5	7.1	9.4
Uttarpara	9.4	18.9	28.3	9.4	Gya	13.8	14.3	21.2	24.6
Howrah	17.8	15.3	18.2	14.0	Arrah	14.4	19.8	19.1	9.6
Bali	21.1	7.0	10.5	3.8	Moozufferpore	18.9	15.8	14.6	9.7
Kishnagar	22.7	17.0	11.4	3.8	Durghanga	16.5	31.5	23.0	24.4
Ranaghat	6.0	22.9	24.0	24.0	Chupra	14.1	8.0	15.1	26.1
Santipore	15.8	17.5	12.3	17.5	Bhagalpore	19.0	14.5	12.7	13.6
Jessore	—	18.4	28.9	18.4	Monohyr	17.8	9.9	23.5	17.2
Rampore Beaulah	21.0	31.3	14.8	23.6	Purneah	34.6	24.2	17.3	20.8
Darjiling	14.8	44.3	7.8	14.8	Poori	16.8	18.9	16.8	8.4
Dacca	6.5	13.6	—	11.0					

It will be seen that last week the highest birth-rate was returned from Gya (24.6) and the lowest from Kishnagar (3.8).

DEATHS.

The deaths registered during the week under review correspond to an annual rate of 21.4 per 1,000 of the population. The rate of the week is .1 lower than the average rate of the corresponding week of the past five years, and is higher than the rate of the corresponding week of any of the past five years except 1885, *vide* the figures below—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years.	1890.
Ratio of deaths per 1,000 of the population per annum	20.7	19.0	20.7	20.0	21.1	21.6	21.4

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	3rd May 1890.	10th May 1890.	17th May 1890.	24th May 1890.		3rd May 1890.	10th May 1890.	17th May 1890.	24th May 1890.
Burdwan	21.4	24.4	27.5	22.0	Narainganj	16.6	15.4	15.4	41.4
Midnapore	17.0	32.5	23.3	17.0	Chittagong	9.3	7.0	21.1	7.0
Hughli and Chinsurah	65.6	47.6	47.6	37.9	Comilla	19.3	23.1	15.4	11.6
Serampore	51.4	43.2	21.6	27.5	Patna City	30.3	32.5	17.8	21.1
Uttarpara	47.2	9.4	28.3	28.3	Gya	32.8	31.4	35.3	27.3
Howrah	17.2	15.5	12.0	16.6	Arrah	35.1	9.0	28.3	13.2
Bali	31.6	10.5	28.1	7.0	Moozufferpore	21.2	24.5	17.0	23.1
Kishnagar	15.1	3.8	9.5	15.2	Durghanga	20.1	11.1	19.1	4.0
Ranaghat	47.9	18.0	18.0	18.0	Chupra	46.2	38.9	13.6	13.6
Santipore	8.8	7.5	12.3	26.3	Bhagalpore	32.5	19.0	19.9	23.5
Jessore	24.5	24.5	12.2	—	Monohyr	27.7	27.7	20.8	17.3
Rampore Beaulah	18.4	18.9	36.8	23.0	Purneah	35.7	44.1	30.0	33.0
Darjiling	118.6	88.9	51.9	44.5	Poori	—	—	—	—
Dacca	17.5	24.0	30.5	26.6					

It will be seen that last week the highest mortality occurred in the town of Darjiling (44·5) and the lowest in Chupra (4·0). No deaths were registered during the week in Jessore town.

Measured by last week's mortality, the highest annual death-rates from the following registered death-causes were as follow:—

<i>Cholera.</i>		<i>Small-pox.</i>		<i>Fever.</i>		<i>Other causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Durbhanga	... 14·9	Patna City	... 1·9	Darjiling	... 29·6	Serampore	... 13·7
Patna City	... 12·7			Narainganj	... 24·8	Gya	... 12·2
Mozufferpore	... 9·7						
Monghyr	... 3·6						
Howrah	... 2·9						

The total mortality from the several registered death-causes in the twenty-seven towns amounted to 4· from cholera, against 2·9 per 1,000 in the preceding week; ·8 from small-pox, against ·7; 9·4 from fever, against 11·1; 1·9 from bowel-complaints, against 1·7; ·3 from injury, against the same ratio; and 4·9 from other causes, against 5·8 in the preceding week.

The mortality of last week according to *Sex*, *Class* and *Age* was as follow:—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	... 23·1	Christians	... 29·9	Under 1 year	... 125·0
Females	... 19·6	Hindus	... 22·4	1 and under 5 years	... 28·5
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	... 117	Mahomedans	... 18·9	5 " 10 "	... 16·9
				10 " 15 "	... 13·0
				15 " 20 "	... 15·4
				20 " 30 "	... 13·3
				30 " 40 "	... 17·5
				40 " 50 "	... 18·3
				50 " 60 "	... 22·1
				60 years and upwards	... 40·3

W. H. GREGG, *Dip. Publ. Health, Camb.,*
Sanitary Commissioner for Bengal.

The 7th June 1890.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending with Saturday, the 24th May 1890.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—											Sex.		Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Males.	Females.	Total.	NUMBER OF—			RATIO PER 1,000 OF POPULATION PER ANNUM.			DISEASE.					Ratio of deaths per 1,000 of population per annum in the previous week.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					Males.	Females.	Total.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.		Small-pox.	Fever.				Bowel-complaints.	Injury.	Other diseases.	All causes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000

DISTRICTS.		MORTALITY ACCORDING TO—										Age.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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		DEATHS AMONG—					Under 1 year.					1 and under 5 years.					5 and under 10 years.					10 and under 15 years.					15 and under 20 years.					20 and under 30 years.					30 and under 40 years.					40 and under 50 years.					50 and under 60 years.					60 years and upwards.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
NAMES OF MUNICIPALITIES.		Christians.	Hindus.	Buddhists.	Other classes.	Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Burdwan	Burdwan	9	6	1	1	1	1	1	1	1	1	1	1	4	78.8	23.0	22.3</

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 7th June 1890.

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.

PUBLIC WORKS DEPARTMENT, -BENGAL.

IRRIGATION BRANCH.

Statement showing heights over mean sea-level and low-water in the Rivers Ganges, Bhagiruth, Jellinghee, and Brahmapootra for the month of March 1890.

Date.	RIVER GANGES.										RIVER JELLINGHEE.		RIVER BRAHMAPOOTRA.	
	Mirzapur.	Benares.	Buxar.	Dinapur.	Monghyr.	Sahabganje.	Rampore Beaulah.	Goalundo.			Bechampore.	Sarungunge.	Gowhaty.	
	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.	Height over mean sea-level.
1st	138	138	138	138	138	138	138	138	138	138	138	138	138	138
2nd	138	138	138	138	138	138	138	138	138	138	138	138	138	138
3rd	138	138	138	138	138	138	138	138	138	138	138	138	138	138
4th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
5th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
6th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
7th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
8th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
9th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
10th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
11th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
12th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
13th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
14th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
15th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
16th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
17th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
18th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
19th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
20th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
21st	138	138	138	138	138	138	138	138	138	138	138	138	138	138
22nd	138	138	138	138	138	138	138	138	138	138	138	138	138	138
23rd	138	138	138	138	138	138	138	138	138	138	138	138	138	138
24th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
25th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
26th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
27th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
28th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
29th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
30th	138	138	138	138	138	138	138	138	138	138	138	138	138	138
31st	138	138	138	138	138	138	138	138	138	138	138	138	138	138

CALCUTTA,

The 9th June 1890.

G. A. G. SHAW,

Under-Secretary to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statements showing quantities of Goods carried during the month of March 1890.

ORISSA CIRCLE.

TALDUNDA CANAL SYSTEM.

LENGTH OF CANAL OPEN { TALDUNDA CANAL, 27 MILES.
MACHGONG „ 4 „

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
33	1. Grain ...	37	350	387	12,680	387	12,680	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
1	3. Oilseeds ...	.....	2	2	171	2	171	
1	4. Salt ...	.....	2	2	240	2	240	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
103	7. Building materials ...	.....	1,632	1,632	2,316	604	967	
3	8. Miscellaneous ...	.....	32	32	3,355	32	3,355	
...	9. Fuel ...	.....	.....	.....	.....	.....	.....
15 rafts	10. Timber ...	.....	203 No.	203 No.	293	203 No.	293	
70 "	11. Bamboos ...	.....	61,400 "	61,400 "	1,017	61,400 "	1,017	
141 & 85 rafts.	12. Total ...	{ 37	2,018 & 61,603 No.	2,055 & 61,603 No.	{ 20,072 }	1,027 & 61,603 No.	{ 18,723 }	
374 & 52 rafts.	13. Total of same month last year.	{ 99	5,015 & 29,124 No.	5,114 & 29,124 No.	{ 21,654 }	5,113 & 29,124 No.	{ 20,554 }	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats plying cargo No.		8	133	141	Total tollage of month— 24 + 25 + 26 + 26½ ...			980 15 5
15. Total number of boats plying passenger No.		14	2	16				
15½. Total empty boats "		131	24	155	Total tollage of same month last year ...			1,595 2 9
16. Total registered tonnage, cargo, private Tons		59	1,658	1,717				
16½. Ditto ditto, Government Tons		.....	1,718	1,718	Memorandum of Tollage.			
17. Total registered tonnage, passenger Tons		326	2	328				
17½. Ditto empty "		1,223	291	1,514				
18. Ton-mileage ...		34,568	99,980	1,34,548				
19. Estimated value of cargo Rs.		3,060	15,702	18,762	1. Balance not recovered on the 1st of the month ...			9 10 0
20. Number of passengers ...		838	8	846	2. Tollage per month ...			980 15 5
21. Rafts, bamboos No.		.....	61,400	61,400	3. Total ...			990 9 5
22. Do., bullahs "		.....	203	203	4. Amount credited in the accounts of the month ...			956 5 11
23. Estimated value of rafts Rs.		.....	1,310	1,310	5. Balance due at the end of the month ...			34 8 6
24. Tollage on boats "		183-15-3	730-3-0	914-2-3				
25. Compounded tollage on boats Rs.		.....	.....	.....	
26. Tollage on rafts "		.....	65-11-2	65-11-2				
26½. Demurrage "		1-2-0	.....	1-2-0				
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-1-30				
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	.....	

KENDRAPARA CANAL SYSTEM.

LENGTH OF CANAL OPEN, 75 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Quantity.	Value.	
		Up.	Down.	Total.	Tons.	Rupees.	
346	1. Grain ...	1,334	3,082	4,416	4,416	2,90,800	
1	2. Cotton ...	.....	4	4	4	1,000	
10	3. Oilseeds ...	2	50	52	52	4,240	
25	4. Salt ...	62	47	109	109	12,290	
1	5. Piece-goods ...	44	.....	44	44	1,10,000	
.....	6. Metal ...	.....	.....	.....	.....	.....
66	7. Building materials ...	31	480	511	289	7,210	
133	8. Miscellaneous ...	373	601	974	974	1,73,550	
2	9. Fuel ...	9	.....	9	9	30	
20 rafts	10. Timber ...	.....	1,182 c. ft.	1,182 c. ft.	1,182 c. ft.	370	
74 "	11. Bamboos ..	.....	60,771 "	60,771 "	60,771 "	5,510	
584 & 94 rafts.	12. Total ...	{ 1,855	4,264 & 61,953 c. ft.	6,119 & 61,953 c. ft. }	{ 5,897 & 61,953 c. ft. }	{ 6,05,000 }	{ 6,04,390 }
563 & 67 rafts.	13. Total of same month last year.	{ 1,904	2,226 & 112,925 No.	4,130 & 112,925 No. }	{ 3,648 & 112,925 No. }	{ 3,30,150 }	{ 3,28,160 }
14. Total number of boats plying cargo	No.	299	285	584	Rs. A. P.		
15. Total number of boats plying passenger	No.	52	72	124	Total tollage of month— 24 + 25 + 26 ...		
15½. Ditto empty boats	"	282	259	541	7,624 9 8		
16. Total registered tonnage, cargo, private	Tons	2,698	6,689	9,387	Total tollage of same month last year ...		
16½. Ditto ditto, Government	"	278	426	704	6,200 15 4		
17. Total registered tonnage, passenger	Tons	2,085	2,910	4,995	Memorandum of Tollage.		
17½. Ditto ditto empty boats	"	2,440	1,022	3,462	Rs. A. P.		
18. Ton-mileage	...	298,102	493,612	791,714	1. Balance not recovered on the 1st of the month ...		
19. Estimated value of cargo	Rs.	2,60,300	3,38,820	5,99,120	6,555 11 7		
20. Number of passengers	...	1,794	3,745	5,539	2. Tollage per month ...		
21. Rafts, bamboos	C. ft.	.....	60,771	60,771	7,624 9 8		
22. Do., timber	"	.....	1,182	1,182			
23. Estimated value of rafts	Rs.	.....	5,880	5,880			
24. Tollage on boats	"	2,860-4-3	4,517-1-8	7,377-5-11	3. Total ...		
25. Compounded tollage on boats	Rs.	.....	.....	.....	14,180 5 3		
26. Tollage on rafts	"	.....	247-3-9	247-3-9	4. Amount credited in the accounts of the month ...		
27. Total tollage on boats per ton-mile	Rs.	.....	.....	0-0-1-8	9,169 14 2		
28. Total tollage on rafts per 100 cubic feet	Rs.	.....	.....	0-6-5	5. Balance due at the end of the month ...		
					5,010 7 1		

HIGH LEVEL CANAL, RANGE I.

LENGTH OF CANAL OPEN, 33 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.		Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.
167	1. Grain ...	578	3	581	26,540	581	26,540
5	2. Cotton ...	2	14	16	4,500	16	4,500
9	3. Oilseeds ...	27	2	29	2,510	29	2,510
49	4. Salt ...	.....	108	108	9,060	108	9,060
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
1	6. Metal ...	2	.....	2	320	2	320
38	7. Building materials ...	119	211	330	1,070	122	860
125	8. Miscellaneous ...	244	98	342	95,550	342	95,550
16	9. Fuel ...	164	.....	164	460	128	360
4 rafts	10. Timber ...	558 c. ft.	.....	558 c. ft.	270	558 c. ft.	270
10 "	11. Bamboos ...	2,300 "	5,962 c. ft.	8,262 "	760	8,262 "	760
410 & 14 rafts.	12. Total ...	{ 1,136 & 2,858 c. ft.	{ 436 & 5,962 c. ft.	{ 1,572 & 8,820 c. ft.	{ 1,41,040	{ 1,328 & 8,820 c. ft.	{ 1,40,730
422 & 14 rafts.	13. Total of same month last year ...	{ 976 & 2,728 No.	{ 1,142 & 2,200 No.	{ 2,118 & 4,928 No.	{ 56,980	{ 1,187 & 4,928 No.	{ 56,710
14. Total number of boats plying cargo No.		303	107	410	Total tollage of month— 24 + 25 + 26 ...		Rs. A. P. 936 3 3
15. Total number of boats plying passenger No.		7	6	13	Total tollage of same month last year ...		971 0 6
15½. Ditto empty boats "		69	264	333	Memorandum of Tollage.		
16. Total registered tonnage, cargo, private Tons		2,471	548	3,019			
16½. Ditto ditto, Government "		58	406	464			
17. Total registered tonnage, passenger Tons		36	34	70			
17½. Ditto empty boats "		334	1,205	1,539	1. Balance not recovered on the 1st of the month ...		196 0 6
18. Ton-mileage ...		65,867	43,821	1,09,688			
19. Estimated value of cargo Rs.		98,670	41,340	1,40,010	2. Tollage per month ...		936 3 3
20. Number of passengers ...		28	26	54			
21. Rafts, bamboos C. ft.		2,300	5,962	8,262			
22. Do., timber "		558	.....	558	3. Total ...		1,132 3 0
23. Estimated value of rafts Rs.		540	490	1,030			
24. Tollage on boats "		612-2-6	281 6-3	893-8-9	4. Amount credited in the accounts of the month		965 7 2
25. Compounded tollage on boats Rs.		.....	.....	.....
26. Tollage on rafts "		21-8-9	21-6-9	42-10-6			
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-1-6	5. Balance due at the end of the month ...		166 12 7
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	0-7-9			

HIGH LEVEL CANAL, RANGE II.

LENGTH OF CANAL OPEN, 12½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
110	1. Grain ...	290	8	298	15,375	298	15,375	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
4	4. Salt ...	.....	16	16	2,240	16	2,240	
19	5. Piece-goods ...	.....	19	19	5,320	19	5,320	
...	6. Metal ...	.....	.....	.....	.....	.....	.....
83	7. Building materials ...	8	683	691	452	.....	.....
49	8. Miscellaneous ...	4	158	162	14,616	162	14,616	
29	9. Fuel ...	.....	179	179	534	170	512	
29 rafts	10. Timber ...	.....	8,844 c. ft.	8,844 c. ft.	4,329	8,844 c. ft.	4,329	
49 „	11. Bamboos ...	.....	31,280 No.	31,280 No.	938	31,280 No.	938	
294 & 78 rafts.	12. Total ...	{ 302	1,063 8,844 c. ft. 31,280 No.	1,365 8,844 c. ft. 31,280 No.	{ 43,804	665 8,844 c. ft. 31,280 No.	{ 43,330	
229 & 48 rafts.	13. Total of same month last year.	{ 455	1,516 & 1,224 c. ft. 25,250 No.	1,971 1,224 c. ft. 25,250 No.	{ 36,707	601 & 1,224 c. ft. 25,250 No.	{ 36,084	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats plying cargo ... No.		107	187	294	Total tollage of month— 24 + 25 + 26 ...			683 6 6
15. Total number of boats plying passenger ... No.		2	1	3	Total tollage of same month last year ...			830 0 3
15½. Ditto empty boats „		181	101	282	Memorandum of Tollage.			
16. Total registered tonnage, cargo and boat Tons		588	742	1,330				
16½. Ditto Govt. ditto „		16	1,384	1,400				
17. Total registered tonnage, passenger Tons		11	2	13				
17½. Ditto empty ditto „		904	282	1,186				Rs. A. P.
18. Ton-mileage ...		22,432	24,382	46,814	1. Balance not recovered on the 1st of the month ...			5 6 0
19. Estimated value of cargo Rs.		14,892	23,645	38,537	2. Tollage per month ...			683 6 6
20. Number of passengers ...		237	373	610	3. Total ...			688 12 6
21. Rafts, bamboos No.		.....	31,280	31,280	4. Amount credited in the accounts of the month ...			689 1 6
22. Do., bullahs C. ft.		.....	8,844	8,844	5. Balance due at the end of the month ...			0 5 0 C.E.
23. Estimated value of rafts Rs.		.....	5,267	5,267				
24. Tollage on boats „		179-3-3	411-3-0	590-9-3				
25. Compounded tollage on boats Rs.		.....	.....	.....	
26. Tollage on rafts „		.....	92-13-3	92-13-3				
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-2-42				
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	0-14-0				

HIGH LEVEL CANAL, RANGE III.

LENGTH OF CANAL OPEN, 19 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	
		Up.	Down.	Total.	Rupees.	Tons.	
88	1. Grain ...	208	.....	208	14,897	208	14,897
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
2	4. Salt ...	5	4	9	1,068	9	1,068
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
46	7. Building materials ...	6	377	383	1,313	.....	.....
6	8. Miscellaneous ...	.....	24	24	4,077	24	4,077
...	9. Fuel ...	.....	.....	.....	.....	.....	.....
1 raft	10. Timber ...	.....	288 c. ft.	288 c. ft.	17	288 c. ft.	17
1 "	11. Bamboos ...	.....	150 No.	150 No.	7	150 No.	7
142 & 2 rafts.	12. Total ...	{ 219	405 288 c. ft. 150 No.	624 288 c. ft. 150 No.	{ 21,379	{ 241 288 c. ft. 150 No.	{ 20,066
149 & 11 rafts.	13. Total of same month last year.	{ 286	651	937 216 c. ft. 800 No.	{ 1,63,180	{ 268 216 c. ft. 800 No.	{ 1,57,285
		Up.	Down.	Total.			
14.	Total number of boats plying cargo No.	90	52	142	Total tollage of month— 24 + 25 + 26 ...		
15.	Total number of boats plying passenger No.	.....	.....	.....	Total tollage of same month last year ...		
15½.	Ditto empty ditto "	49	89	138			
16.	Total registered tonnage, cargo and boats Tons	426	56	482			
16½.	Ditto of Govt. do. "	12	754	766	Memorandum of Tollage.		
17.	Total registered tonnage, passenger Tons	.....	.....	.....
17½.	Ditto empty ditto "	323	221	544			
18.	Ton-mileage ...	6,377	8,423	14,800	1. Balance not recovered on the 1st of the month ...		
19.	Estimated value of cargo Rs.	15,459	5,896	21,355			
20.	Number of passengers ...	365	253	618	2. Tollage per month ...		
21.	Rafts, bamboos No.	.....	150	150			
22.	Do., bullahs C. ft.	.....	288	288	3. Total ...		
23.	Estimated value of rafts Rs.	.....	24	24			
24.	Tollage on boats "	118-14-6	155-12-9	274-11-3	4. Amount credited in the accounts of the month ...		
25.	Compounded tollage on boats Rs.	.....	.....	.....
26.	Tollage on rafts "	.....	0-7-6	0-7-6			
27.	Total tollage on boats per ten-mile Rs.	.....	.....	0-0-3-57			
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-2-7	5. Balance due at the end of the month ...		

Rs. A. P.

Rs. A. P.

0 10 00 E.

JAJEPORE CANAL.

LENGTH OF CANAL OPEN, 6½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
...	1. Grain	.....	.....	.....	.....	.....	.....
...	2. Cotton	.....	.....	.....	.....	.....	.....
...	3. Oilseeds	.....	.....	.....	.....	.....	.....
...	4. Salt	.....	.....	.....	.....	.....	.....
...	5. Piece-goods	.....	.....	.....	.....	.....	.....
...	6. Metal	.....	.....	.....	.....	.....	.....
...	7. Building materials	.....	.....	.....	.....	.....	.....
36	8. Miscellaneous	.....	112	112	13,082	112	13,082	
2	9. Fuel	.....	14	14	103	6	47	
27 rafts	10. Timber	.....	7,950 c. ft.	7,950 c. ft.	1,051	7,950 c. ft.	1,051	
27 "	11. Bamboos	.....	12,000 No.	12,000 No.	360	12,000 No.	360	
38 & 54 rafts.	12. Total	{	126 7,950 c. ft. 12,000 No.	126 7,950 c. ft. 12,000 No.	{ 14,596 }	118 7,950 c. ft. 12,000 No.	{ 14,540 }	
12 & 30 rafts.	13. Total of same month last year.	{ 1½	20 4,872 c. ft. 3,800 No.	21½ 4,872 c. ft. 3,800 No.	{ 4,783 }	21½ 4,872 c. ft. 3,800 No.	{ 4,783 }	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats plying cargo		.....	38	38	Total tollage of month— 24 + 25 + 26			47 1 0
15. Total number of boats plying passenger		1	.....	1	Total tollage of same month last year			12 1 6
15½. Ditto empty ditto		41	8	49				
16. Total registered tonnage, cargo and boats		.....	236	236				
16½. Ditto of Govt. do.		.....	16	16				
17. Total registered tonnage, passenger		4	.....	4	Memorandum of Tollage.			
17½. Ditto empty ditto		98	6	104				
18. Ton-mileage		612	1,536	2,178	1. Balance not recovered on the 1st of the month			.....
19. Estimated value of cargo Rs.		.....	13,185	13,185	2. Tollage per month			47 1 0
20. Number of passengers		106	73	179	3. Total			47 1 0
21. Rafts, bamboos		.....	12,000	12,000	4. Amount credited in the accounts of the month			47 1 0
22. Do., bullahs		.....	7,950	7,950	5. Balance due at the end of the month			.....
23. Estimated value of rafts Rs.		.....	1,411	1,411				
24. Tollage on boats		4-11-6	19-10-6	24-6-0				
25. Compounded tollage on boats		.....	.....	.....	
26. Tollage on rafts		.....	22-11-0	22-11-0				
27. Total tollage on boats per ton-mile		.....	.....	0-0-2-14				
28. Total tollage on rafts per 100 cubic feet		.....	.....	0-4-6				

SOUTH-WESTERN CIRCLE.
MIDNAPORE CANAL.
LENGTH OF CANAL OPEN, 53 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.		Tons.	Rupees.	
1,337	1. Grain ...	7,076	499	7,575	4,15,379	7,575	4,15,379	
1	2. Cotton ...	...	2	2	720	2	720	
62	3. Oilseeds ...	1,201	92	1,293	1,38,379	1,293	1,38,379	
122	4. Salt ...	...	886	886	91,363	886	91,363	
7	5. Piece-goods ...	2	46	48	1,32,700	48	1,32,700	
20	6. Metal ...	47	84	131	91,155	131	91,155	
62	7. Building materials ...	726	9	735	3,830	735	3,830	
345	8. Miscellaneous ...	743	540	1,283	4,69,358	1,283	4,69,358	
39	9. Fuel ...	189	143	332	3,173	332	3,173	
55 rafts	10. Timber ...	15,363 c. ft.	132 c. ft.	15,495 c. ft.	6,385	15,495 c. ft.	6,385	
26 "	11. Bamboos ...	3,300 "	250 "	3,550 "	355	3,550 "	355	
1,995 & 81 rafts.	12. Total ...	{ 9,984 & 18,663 c. ft.	{ 2,301 & 382 c. ft.	{ 12,285 & 19,045 c. ft.	{ 13,52,797	{ 12,285 & 19,045 c. ft.	{ 13,52,797	
2,276 & 69 rafts.	13. Total of same month last year.	{ 9,123 & 9,184 c. ft.	{ 3,055 & 187 c. ft.	{ 12,178 & 9,371 c. ft.	{ 9,69,026	{ 12,178 & 9,371 c. ft.	{ 9,69,026	
		Up.	Down.	Total.				Rs. A. P.
14.	Total number of boats plying cargo No.	1,557	438	1,995	Total tollage of month—24+25+26 ...			15,077 8 6
15.	Total number of boats plying passenger No.	557	722	1,279	Total tollage of same month last year ...			15,997 7 9
15½.	Ditto empty boats "	524	1,152	1,676				
16.	Total registered tonnage, cargo Tons	22,287	5,624	27,911	Memorandum of Tollage.			
17.	Total registered tonnage, passenger Tons	4,908	3,779	8,687				
17½.	Ditto empty "	2,518	6,061	8,579				Rs. A. P.
18.	Ton-mileage ...	649,738	303,369	953,107	1. Balance not recovered on the 1st of the month ...			7,218 2 7
19.	Estimated value of cargo Rs.	8,87,488	4,58,569	13,46,057	2. Tollage per month ...			15,077 8 6
20.	Number of passengers ...	5,914	9,214	15,128				
21.	Rafts, bamboos C. ft.	3,300	250	3,550				
22.	Do., bullahs "	15,363	132	15,495	3. Total ...			22,295 11 1
23.	Estimated value of rafts Rs.	6,409	331	6,740				
24.	Tollage on boats "	10,317-0-9	4,539-8-9	14,856-9-6				
25.	Compounded tollage on boats Rs.	.....	.....	.....	4. Amount paid into treasury during the month ...			17,681 15 0
26.	Tollage on rafts "	218-10-3	2-4-9	220 15-0				
27.	Total tollage on boats per ton-mile Rs.	.....	.....	0-0-2-9				
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	1-2-6	5. Balance due at the end of the month ...			4,613 12 1

HIDGELLIE TIDAL CANAL.

LENGTH OF CANAL OPEN, 29 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
242	1. Grain ...	581	1	582	21,456	582	21,456	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
6	4. Salt ...	.....	33	33	3,237	33	3,237	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
4	7. Building materials ...	64	3	67	284	3	14	
391	8. Miscellaneous ...	30	104	134	17,195	134	17,195	
4	9. Fuel ...	1	27	28	198	28	198	
3 rafts	10. Timber ...	.....	229 c. ft.	229 c. ft.	220	229 c. ft.	220	
3 „	11. Bamboos ...	.....	600 „	600 „	55	600 „	55	
647 & 6 rafts.	12. Total ...	{ 676	168 & 829 c. ft.	844 & 829 c. ft. }	42,645 {	780 & 829 c. ft. }	42,375	
1,282 & 7 rafts.	13. Total of same month last year.	{ 3,600 100	1,531 & 1,601 c. ft.	5,131 & 1,701 c. ft. }	2,76,107 {	5,077 & 1,701 c. ft. }	2,72,817	
		Up.	Down.	Total.				Rs. A. P.
14.	Total number of boats ply- ing cargo No.	275	372	647	Total tollage of month— 24 + 25 + 26 ...			955 2 9
15.	Total number of boats ply- ing passenger No.	14	10	24	Total tollage of same month last year			4,893 2 6
16.	Total registered tonnage, cargo Tons	1,363	1,409	2,772	Memorandum of Tollage.			
17.	Total registered tonnage, passenger Tons	157	101	258				
18.	Ton-mileage ...	26,698	27,186	53,884	Rs. A. P.			
19.	Estimated value of cargo Rs.	22,601	19,769	42,370				
20.	Number of passengers ...	545	417	962	1. Balance not recovered on the 1st of the month ...			696 6 0
21.	Rafts, bamboos C. ft.	.....	600	600	2. Tollage per month ...			955 2 9
22.	Do., bullahs „	.....	229	229				
23.	Estimated value of rafts Rs.	.....	275	275	3. Total ...			1,651 8 9
24.	Tollage on boats „	470-9-9	474-11-9	945-5-6	4. Amount paid into treasury during the month ...			973 8 6
25.	Compounded tollage on boats Rs.	.....	.....	.....	
26.	Tollage on rafts „	.....	9-13-3	9-13-3				
27.	Total tollage on boats per ton-mile Rs.	... ..	.....	0-0-3-3				
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	1-2-11	5. Balance due at the end of the month			678 0 3

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
9	1. Grain	106	106	6,075	106	6,075	
...	2. Cotton	
47	3. Oilseeds ...	1	530	531	49,542	531	49,542	
6	4. Salt ...	104	104	6,827	104	6,827	
16	5. Piece-goods ...	131	...	131	34,525	131	34,525	
...	6. Metal ...	8	3	11	3,030	11	3,030	
5	7. Building materials	18	28	46	129	
60	8. Miscellaneous ...	163	221	384	48,743	348	48,689	
1	9. Fuel { By boat	2	2	30	2	30	
	{ „ rafts	86	86	2,000	86	2,000	
1	10. Timber { By boat	4	2	6	382	6	382	
	{ „ rafts	617	617	7,058	617	7,058	
18	11. Bamboos { By boat	168	168	3,215	168	3,215	
	{ „ rafts	1,104	1,104	15,676	1,104	15,676	
163	12. Total ...	597	2,699	3,296	1,77,232	3,214	1,77,049	
192	13. Total of same month last year ...	998	4,195	5,193	1,68,477	4,766	1,59,529	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	73	90	163	Total tollage of month— 24 + 25 + 26 ...	2,224 4 3
15. Total number of boats plying passenger No.	4	4	8		
15½. Ditto empty boats "	58	34	92	Total tollage of same month last year ...	3,215 11 3
16. Total registered tonnage, cargo Tons	1,061	1,499	2,560		
17. Total registered tonnage, passenger Tons	164	164	328		
17½. Ditto empty boats "	220	165	385		
18. Ton-mileage ...	64,068	1,71,841	2,35,909		
19. Estimated value of cargo Rs.	56,065	96,433	1,52,498		
20. Number of passengers ...	399	331½	730½		
21. Rafts, bamboos C. ft.	.....	165,667	165,667		
22. Do., bullahs "	.....	52,725	52,725		
23. Estimated value of rafts Rs.	.....	24,734	24,734		
24. Tollage on boats "	513-7-3	854-7-0	1,367-14-3		
25. Compounded tollage on boats Rs.	75-0-0	75-0-0	150-0-0		
26. Tollage on rafts "	.....	706-6-0	706-6-0		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1-2		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-5-2		
				1. Balance not recovered on the 1st of the month ...	476 9 10
				2. Tollage per month ...	2,224 4 3
				3. Total ...	2,700 14 1
				4. Amount credited in the accounts of the month ...	2,484 6 6
				5. Balance due at the end of the month ...	216 7 7

ARRAH CANAL SYSTEM.
LENGTH OF CANAL OPEN, 65 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
6	1. Grain ...	14	33	47	2,735	47	2,735	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
21	3. Oilseeds ...	.....	376	376	40,560	376	40,560	
25	4. Salt ...	181	.....	181	22,600	181	22,600	
...	5. Piece-goods ...	24	.....	24	33,250	24	33,250	
...	6. Metal ...	7	.....	7	2,47,053	7	2,47,053	
5	7. Building materials ...	.....	31	31	109	13	94	
132	8. Miscellaneous ...	79	1,105	1,184	90,967	926	89,192	
5	9. Fuel ...	64	14	78	791	14	200	
1	10. Timber ...	.....	1	1	30	1	30	
Rafts	11. { Bullahs ...	.....	374	374	3,483	374	3,483	
	{ Bamboos ...	.....	308	308	2,859	308	2,859	
	{ Firewood ...	.....	163	163	419	163	419	
155	12. Total ...	369	2,405	2,774	4,44,856	2,434	4,42,475	
112	13. Total of same month last year.	400	1,561	1,961	3,64,642	1,800	3,62,672	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	46	149	195	Total tollage of month— 24 + 25 + 26 ...	1,939 6 0
15. Total number of boats plying passenger No.	3	.....	3	Total tollage of same month last year ...	1,286 6 6
15½. Total number of empty boats No.	142	3	145		
16. Total registered tonnage, cargo Tons	749	2,520	3,269		
17. Total registered tonnage, passenger Tons	96	61	157		
17½. Total registered tonnage, empty Tons	558	10	568		
18. Ton-mileage ...	62,682	1,20,663	183,345		
19. Estimated value of cargo Rs.	3,13,323	1,24,772	4,38,095		
20. Number of passengers ...	1,198	856	2,054		
21. Rafts, bamboos C.ft.	.....	46,297	46,297		
22. Do., bullahs "	.....	28,098	28,098		
22½. Do., firewood "	.....	12,225	12,225		
23. Estimated value of rafts Rs.	.....	6,761	6,761		
24. Tollage on boats "	319-5-6	961-5-6	1,280-11-0		
25. Compounded tollage on boats Rs.	228-0-0	228-0-0	456-0-0		
26. Tollage on rafts "	.....	202-11-0	202-11-0		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1-81		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-3-8		
Memorandum of Tollage.					
					Rs. A. P.
1. Balance not recovered on the 1st of the month ...					107 6 6
2. Tollage per month ...					1,939 6 0
3. Total ...					2,046 12 6
4. Amount credited in the accounts of the month ...					1,817 15 9
5. Balance due at the end of the month ...					228 12 9

BUXAR CANAL SYSTEM.
LENGTH OF CANAL OPEN, 67 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
1	1. Grain ...	.....	9	9	600	9	600	
..	2. Cotton ...	1	.....	1	1,900	1	1,900	
16	3. Oilseeds ...	1	363	364	38,325	364	38,325	
...	4. Salt ...	.....	.....	.....	.....	.....	.....
1	5. Piece-goods ...	.....	3	3	250	3	250	
...	6. Metal ...	2	.....	2	1,257	2	1,257	
17	7. Building materials ...	128	79	207	2,124	2	424	
41	8. Miscellaneous ...	57	556	613	56,436	613	56,436	
...	9. Fuel ...	.....	.....	.....	.....	.....	.....
Rafts	10. Timber ...	.....	260	260	2,027	260	2,027	
	11. Bamboos ...	.....	172	172	2,161	172	2,161	
76	12. Total ...	189	1,442	1,631	1,05,080	1,426	1,03,380	
16	13. Total of same month last year.	24	1,085	1,109	37,570	1,101	37,489	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	14	62	76		
15. Total number of boats plying passenger No.	8	11	19	Total tollage of month— 24 + 25 + 26 ...	906 8 0
15½. Ditto empty boats "	52	27	79		
16. Total registered tonnage, cargo Tons	245	1,750	1,995	Total tollage of same month last year ...	714 0 6
17. Total registered tonnage, passenger Tons	216	248	464		
17½. Ditto empty "	170	105	275		
18. Ton-mileage ...	6,833	37,100	43,933	<i>Memorandum of Tollage.</i>	
19. Estimated value of cargo Rs.	9,068	91,824	1,00,892		
20. Number of passengers ...	652	765	1,417		
21. Rafts, bamboos C. ft.	.....	25,815	25,815	1. Balance not recovered on the 1st of the month ...	7 9 9
22. Do., bullahs "	.....	19,555	19,555	2. Tollage per month ...	906 8 0
23. Estimated value of rafts Rs.	.....	4,188	4,188		
24. Tollage on boats "	96-14-6	438-11-9	535-10-3	3. Total ...	914 1 9
25. Compounded tollage on boats Rs.	107-0-0	107-0-0	214-0-0		
26. Tollage on rafts "	.....	156-13-9	156-13-9	4. Amount credited in the accounts of the month ...	914 1 3
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-3		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-5-6	5. Balance due at the end of the month ...	.....

**ABSTRACT FOR THE MONTH OF MARCH 1890 AS COMPARED WITH THE
CORRESPONDING MONTH OF THE PREVIOUS YEAR.**

CANAL.	TRAFFIC, 1889-90.						TRAFFIC, 1888-89.						REMARKS.
	During the month.			To end of the month.			During the month.			To end of the month.			
<i>Orissa Circle.</i>	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Taldunda Canal System ...	980	15	5	4,346	6	8	1,595	2	9	4,285	13	9	
Kendrapara Canal System	7,624	9	8	60,043	0	3	6,200	15	4	51,708	11	10	
High Level, Range I ...	936	3	3	8,279	10	11	971	0	6	6,680	10	3	
Ditto " II ...	683	6	6	3,431	15	9	830	0	3	3,392	9	9	
Ditto " III ...	275	2	9	1,385	6	3	406	3	3	1,600	8	9	
Jajepore Canal ...	47	1	0	163	6	0	12	1	6	98	14	3	
Total Orissa Circle ...	10,547	6	7	77,649	13	10	10,015	7	7	67,767	4	7	
<i>South-Western Circle.</i>													
Midnapore Canal ...	15,077	8	6	1,44,093	10	9	15,997	7	9	1,47,689	4	3	
Hidgellee Tidal Canal ...	955	2	9	39,458	15	9	4,893	2	6	55,419	15	3	
Total South-Western Circle	16,032	11	3	1,83,552	10	6	20,890	10	3	2,03,109	3	6	
<i>Sone Circle.</i>													
Patna Canal System ...	2,224	4	3	24,271	3	0	3,215	11	3	25,165	0	0	
Arrah ditto ...	1,939	6	0	18,565	4	11	1,286	6	6	18,420	8	8	
Buxar ditto ...	906	8	0	7,478	15	2	714	0	6	8,826	3	0	
Total Sone Circle ...	5,070	2	3	50,315	7	1	5,216	2	3	52,411	11	8	
GRAND TOTAL ...	31,650	4	1	3,11,517	15	5	36,122	4	1	3,23,288	3	9	

GOVERNMENT TRANSPORT SERVICE.

CANAL.	TRAFFIC, 1889-90.						TRAFFIC, 1888-89.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
High Level ...	1,425	1,867	1,284 7 10	9,361	9,861	10,601 12 8	1,144	4,000	1,549 10 0	6,448	11,179	8,064 13 8
Total Orissa Circle ...	1,425	1,867	1,284 7 10	9,361	9,861	10,601 12 8	1,144	4,000	1,549 10 0	6,448	11,179	8,064 13 8

TOTAL NAVIGATION RECEIPTS.

CANAL.	EARNINGS, 1889-90.						EARNINGS, 1888-89.						REMARKS.	
	During the month.			To end of the month.			During the month.			To end of the month.				
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		
Orissa Canals	...	11,831	14	5	88,251	10	6	11,565	1	7	75,832	2	3	
Midnapore Canal	...	15,077	8	6	1,44,093	10	9	15,997	7	9	1,47,689	4	3	
Hidgellee Tidal Canal	...	955	2	9	39,458	15	9	4,893	2	6	55,413	15	3	
Sone Canals	...	5,070	2	3	50,315	7	1	5,216	2	3	52,411	11	8	
Total	...	32,934	11	11	3,22,119	12	1	37,671	14	1	3,31,353	1	5	

CALCUTTA,
The 9th June 1890.

G. A. G. SHAWK,
Under-Secy to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.

NUDDEA RIVERS.

Statement showing quantities of Goods carried during the month of April 1890.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity--Tons.		Value.	Quantity.	Value.		
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
513	1. Grain ...	1,257	4,904.75	6,161.75	3,46,188	6,161.75	3,46,188	* 4 Mounds passed "up" and 7 mounds passed "down" on Mahabudra river.
1	2. Cotton ...	.....	25	25	14,000	25	14,000
63	3. Oilseeds ...	16	721	737	93,612	737	93,612	
124	4. Salt ...	497	.....	497	44,063	497	44,063
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
11	6. Metal* ..	7.88	19.59	27.47	30,865	27.47	30,865	
16	7. Building materials	146	24	170	2,689	170	2,689	
410	8. Miscellaneous ...	1,331.18	2,434.7	3,765.88	9,94,502	3,765.88	9,94,502	
16	9. Fuel ...	109	58	167	1,296	167	1,296	
Rafts 3	10. Timber ...	85 c. ft.	.....	85 c. ft.	232	85 c. ft.	232
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
1,154 & 3 rafts.	12. Total ...	{ 3,364.06 & 85 c. ft.	8,187.04	11,551.10 & 85 c. ft.	{ 15,27,447	{ 11,551.10 & 85 c. ft.	{ 15,27,447	
1,303 & 40 rafts.	13. Total of same month last year	{ 2,162 & 322 c. ft.	10,274 & 15,365 c. ft.	12,436 & 15,687 c. ft.	{ 13,11,029	{ 12,436 & 15,687 c. ft.	{ 13,11,029	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	486	668	1,154	Total tollage of month—24+25+26 ...	6,375 11 0
14a. Empty boats and steamers, &c. No.	413	145	558	Total tollage of same month last year ...	7,169 0 0
15. Total number of boats plying passenger No.	281	263	544	<i>Memorandum of Tollage.</i>	
15a. Ditto empty boats "	2	1	3		
16. Total registered tonnage, cargo Tons	13,316.25	17,004	30,320.25	1. Balance not recovered on the 1st of the month ...	195 0 0
17. Total registered tonnage, passenger Tons	105.5	116	221.5	2. Tollage per month ...	6,375 11 0
18. Ton-mileage	.....	.....	.....	3. Total ...	6,570 11 0
19. Estimated value of cargo Rs.	4,88,927	10,38,288	15,27,215	4. Amount paid into treasury during the month ...	6,302 6 6
20. Number of passengers No.	753	594	1,347	5. Balance due at the end of the month ...	268 4 6
21. Rafts, bamboos C. ft.	.....	.....	.....
22. Do., bullahs "	85	.....	85		
23. Estimated value of rafts Rs.	232	.....	232		
24. Tollage on boats "	2,375.5-6	3,998.15-0	6,374.4-6		
25. Compounded tollage on boats Rs.	.....	.....	.....
26. Tollage on rafts "	1-6-6	.....	1-6-6		
27. Total tollage on boats per ton-mile*	.....	.....	.....
28. Total tollage on rafts per 100 cubic feet ... Rs.	.....	.....	1-10-5		

* Boats in these rivers do not pay per mile.

Abstract for the month of April 1890 as compared with the corresponding month of the previous year.

	1890-91.		1889-90.	
	During the month.	To end of the month.	During the month.	To end of the month.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tollage ...	6,375 11 0	6,375 11 0	7,169 0 0	7,169 0 0

CALCUTTA,
The 9th June 1890.G. A. G. SHAW,
Under-Secy. to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.

ORISSA COAST CANAL SYSTEM.

LENGTH OF CANAL OPEN, 97½ MILES.

Statement showing Quantities of Goods carried during the month of April 1890.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees	
269	1. Grain ...	2,530	196	2,726	1,07,778	2,726	1,07,778	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
3	3. Oilseeds ...	3	.....	3	205	3	205	
20	4. Salt ...	.....	133	133	14,845	133	14,845	
7	5. Piece-goods ...	.....	18	18	16,100	18	16,100	
...	6. Metal ...	.....	.....	.....	.....	.....	.....
31	7. Building materials ...	15	344	359	1,009	11	44	
651	8. Miscellaneous ...	184	476	660	69,626	638	69,211	
38	9. Fuel ...	56	135	191	1,448	154	937	
3 rafts	10. Timber ...	209 c. ft.	.....	209 c. ft.	287	209 c. ft.	287	
18 "	11. Bamboos ...	650 "	2,425 c. ft.	3,075 "	246	3,075 "	246	
1,019 & 21 rafts.	12. Total ...	{ 2,788 & 859 c. ft.	{ 1,302 & 2,425 c. ft.	{ 4,090 & 3,284 c. ft.	{ 2,11,544	{ 3,683 & 3,284 c.ft.	{ 2,09,653	
1,058 & 17 rafts.	13. Total of same month last year.	{ 2,694 & 774 c. ft.	{ 1,034 & 1,625 c. ft.	{ 3,728 & 2,399 c. ft.	{ 2,18,582	{ 3,631 & 2,399 c.ft.	{ 2,17,000	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats plying cargo No.		512	507	1,019	Total tollage of month— 24+25+26 ...			6,173 10 9
15. Total number of boats ply- ing passenger No.		66	55	121	Total tollage of same month last year ...			5,586 13 3
16. Total registered tonnage, cargo Tons		5,597	4,238	9,835				
17. Total registered tonnage, passenger Tons		793	746	1,539	Memorandum of Tollage.			
18. Ton-mileage ...		199,796	150,333	350,129				
19. Estimated value of cargo Rs.		107,786	103,225	2,11,011				
20. Number of passengers No.		1,329	1,842	3,171				
21. Rafts, bamboos C. ft.		650	2,425	3,075	1. Balance not recovered on the 1st of the month			*5,201 6 3
22. Do., bullahs "		209	.....	209	2. Tollage per month ...			6,173 10 9
23. Estimated value of rafts Rs.		319	214	533				
24. Tollage on boats "		3,505-12-0	2,633-9-9	6,139-5-9	3. Total ...			11,375 1 0
25. Compounded tollage on boats Rs.		.....	15-0-0	15-0-0				
26. Tollage on rafts "		5-12-0	13-9-0	19-5-0	4. Amount paid into treasury during the month ...			6,600 6 9
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-3-3				
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	0-9-4	5. Balance due at the end of the month ...			4,774 10 3

* Difference of Rs. 233-11 with that of previous month adjusted in supplementary accounts for March 1890.

Abstract for the month of April 1890 as compared with the corresponding month of the previous year.

	1890-91.		1889-90.	
	During the month.		During the month.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tollage ...	6,173 10 9	6,173 10 9	5,586 13 3	5,586 13 3

CALCUTTA,
The 9th June 1890.G. A. G. SHAW, E.
Under-Secy. to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.

CALCUTTA AND EASTERN CANALS.

Statement showing quantities of Goods carried during the month of April 1890.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
264	1. Grain ...	5,124	65	5,189	5,72,081	5,189	5,72,081	* For details, see next page.
1	2. Cotton ...	1	.....	1	500	1	500	
36	3. Oilseeds ..	366	30	396	41,728	396	41,728	
101	4. Salt ...	243	1,564	1,807	1,70,775	1,807	1,70,775	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
10	6. Metal ...	229	.....	229	34,775	229	34,775	
79	7. Building materials	2,974	157	3,131	56,117	3,131	56,117	
1,160	8. Miscellaneous*	6,065	277	6,342	7,58,384	6,342	7,58,384	
310	9. Fuel ...	6,638	302	6,940	53,095	6,940	53,095	
...	10. Timber ...	.....	.....	.....	.....	.....	.....
7 rafts	11. Bamboos ...	1,425 c. ft.	.....	1,425 c. ft.	237	1,425 c. ft.	237	
1,961 & 7 rafts	12. Total ...	{ 21,640 & 1,425 c. ft. }	{ 2,395 & }	{ 24,035 & 1,425 c. ft. }	16,87,692	{ 24,035 & 1,425 c. ft. }	16,87,692	* For details, see next page.
2,407 & 8 rafts.	13. Total of same month last year	{ 26,123 & 3,300 c. ft. }	{ 3,365 & }	{ 29,488 & 3,300 c. ft. }	22,23,525	{ 29,488 & 3,300 c. ft. }	22,23,525	
14. Total number of boats plying cargo No.		Up. 1,815	Down. 146	Total. 1,961	Total tollage of month—24+25+26 ...			Rs. A. P. 15,786 1 3
14a. Ditto empty boats ..		992	213	1,205	Total tollage of same month last year ...			18,938 8 6
15. Total number of boats plying passenger No.		484	.....	484	Memorandum of Tollage.			
16. Total registered tonnage, cargo Tons		63,155	6,574	69,729				
17. Total registered tonnage, passenger Tons		824	.....	824				
18. Ton-mileage ...		5,49,905	65,740	6,15,645				Rs. A. P.
19. Estimated value of cargo Rs.		14,90,641	1,96,814	16,87,455	1. Balance not recovered on the 1st of the month ...			533 8 9
20. Number of passengers No.		2,136	.....	2,136	2. Tollage per month ...			15,786 1 3
21. Rafts, bamboos C. ft.		1,425	.....	1,425	3. Total ...			16,319 10 0
22. Do., bullahs ..		.....	.....	.....	4. Amount paid into treasury during the month ...			16,043 9 9
23. Estimated value of rafts Rs.		237	...	237	5. Balance due at the end of the month ...			276 0 3
24. Tollage on boats ..		14,172-2-9	1,610-10-6	15,782-13-3				
25. Compounded tollage on boats Rs.		.....	.....	.....	
26. Tollage on rafts ..		3-4-0	.....	3-4-0				
27. Total tollage on boats per ton-mile Rs.		.....	.....	C-0-4-92				
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	0-3-7				

ARTICLES OF TRAFFIC INCLUDED IN ITEM 8 (MISCELLANEOUS).
CALCUTTA AND EASTERN CANALS.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity--Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
109	(a) Jute ...	2,230	.....	2,230	2,81,025	2,230	2,81,025	
18	(b) Jaggery ...	169	.....	169	18,900	169	18,900	
9	(c) Sugar ...	33	13	46	10,200	46	10,200	
...	(d) Tobacco ...	.....	.....	.....	.....	.....	.....
348	(e) Fish ...	135	1	136	38,020	136	38,020	
4	(f) Hides ...	1	.....	1	240	1	240	
67	(g) Poultry ...	15	.....	15	12,420	15	12,420	
123	(h) Hay and straw ...	1,224	.....	1,224	25,698	1,224	25,698	
14	(j) Oil ...	.....	201	201	28,150	201	28,150	
39	(k) Earthenware ...	71	.....	71	991	71	991	
429	(m) Other miscella- neous ...	2,187	62	2,249	3,42,740	2,249	3,42,740	
1,160	Total Miscellaneous...	6,065	277	6,342	7,58,384	6,342	7,58,384	

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.
SOUTH-WESTERN CIRCLE.

TOLLY'S NULLAH.

Statement showing quantities of Goods carried during the month of April 1890.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	
		Up.	Down.	Total.	Rupees.	Tons.	
881	1. Grain ...	4,465	11	4,476	4,52,212	4,476	4,52,212
4	2. Cotton ...	36	.....	36	20,000	36	20,000
12	3. Oilseeds ...	144	.....	144	15,644	144	15,644
108	4. Salt ...	496	1,086	1,582	1,49,512	1,582	1,49,512
.....	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
1	6. Metal ...	18	.....	18	1,750	18	1,750
403	7. Building materials ...	4,997	46	5,043	19,655	5,043	19,655
726	8. Miscellaneous* ...	2,729	182	2,911	3,04,243	2,911	3,04,243
141	9. Fuel ...	1,894	93	1,987	15,934	1,987	15,934
2 rafts.	10. Timber ...	4,200 c. ft.	2,400 c. ft.	6,600 c. ft.	16,500	6,600 c. ft.	16,500
8 "	11. Bamboos ...	492 "	.....	492 "	82	492 "	82
2,276 & 10 rafts.	12. Total ...	{ 14,779 & 4,692 c. ft.	{ 1,418 & 2,400 c. ft.	{ 16,197 & 7,092 c. ft. }	{ 9,95,532 }	{ 16,197 & 7,092 c. ft. }	{ 9,95,532 }
2,108 & 8 rafts.	13. Total of same month last year ...	{ 12,039 & 411 c. ft.	{ 399 }	{ 12,438 & 411 c. ft. }	{ 10,12,564 }	{ 12,438 & 411 c. ft. }	{ 10,12,564 }
* For details, see next page.							
		Up.	Down.	Total.			
14.	Total number of boats plying cargo ... No.	2,163	113	2,276	Total tollage of month— 24+25+26 ...		
14a.	Empty " "	679	145	824	Rs. A. P. 8,481 10 9		
15.	Total number of boats plying passenger ... No.	280	4	284	Total tollage of same month last year ...		
16.	Total registered tonnage, cargo ... Tons	51,607	4,204	55,811	7,540 3 6		
17.	Total registered tonnage, passenger ... Tons	545	16	561	Memorandum of Tollage.		
18.	Ton-mileage ...	3,96,437	67,264	4,63,701			
19.	Estimated value of cargo Rs.	8,52,211	1,26,739	9,78,950			
20.	Number of passengers No.	1,434	30	1,464			
21.	Rafts, bamboos C. ft.	492	.....	492			
22.	Do., bullahs "	4,200	2,400	6,600			
23.	Estimated value of rafts Rs.	10,582	6,000	16,582			
24.	Tollage on boats "	7,422-7-3	1,034-2-6	8,456-9-9			
25.	Compounded tollage on boats ... Rs.	.....	.....	.....
26.	Tollage on rafts "	16-1-0	9-0-0	25-1-0			
27.	Total tollage on boats per ton-mile "	.....	.....	0-0-3-50			
28.	Total tollage on rafts per 100 cubic feet ... Rs.	.....	.....	0-5-7			
					1. Balance not recovered on the 1st of the month ...	182 3 0	
					2. Tollage per month ...	8,481 10 9	
					3. Total ...	8,663 13 9	
					4. Amount paid into treasury during the month ...	8,310 12 0	
					5. Balance due at the end of the month ...	353 1 9	

ARTICLES OF TRAFFIC INCLUDED IN ITEM 8 (MISCELLANEOUS).
TOLLY'S NULLAH.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
3	(a) Jute ...	34	5	39	4,950	39	4,950	
60	(b) Jaggery ...	392	.....	392	43,900	392	43,900	
1	(c) Sugar ...	3	.....	3	800	3	800	
15	(d) Tobacco ...	131	14	145	28,350	145	28,350	
83	(e) Fish ...	18	.....	18	4,952	18	4,952	
.....	(f) Hides ...	.....	.....	.....	.....	.....	.....
3	(g) Poultry ...	1	.....	1	256	1	256	
175	(h) Hay and straw...	360	.....	360	7,554	360	7,554	
33	(j) Oil ...	265	39	304	42,500	304	42,500	
106	(k) Earthenware ...	127	.....	127	1,775	127	1,775	
247	(m) Other miscellane- ous.	1,398	124	1,522	1,69,206	1,522	1,69,206	
726	Total Miscellaneous...	2,729	182	2,911	3,04,243	2,911	3,04,243	

ABSTRACT FOR THE MONTH OF APRIL 1890, AS COMPARED WITH THE
CORRESPONDING MONTH OF THE PREVIOUS YEAR.

	TRAFFIC, 1889-91.			TRAFFIC, 1889-90.		
	During the month.		To end of the month.	During the month.		To end of the month.
	Rs.	A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Calcutta and Eastern Canals ...	15,786	1 3	15,786 1 3	18,938	8 6	18,938 8 6
Tolly's Nullah ...	8,481	10 6	8,481 10 9	7,540	3 6	7,540 3 6
Total ...	24,267	12 0	24,267 12 0	26,478	12 0	26,478 12 0

CALCUTTA,
The 9th June 1890.

G. A. G. SHAW, *Under-Secretary to the Govt. of Bengal.*

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 7th June 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 7TH JUNE 1890.			WEEK ENDING SATURDAY, THE 8TH JUNE 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	163	39,450	572	168	45,630	853
Jute	8	4,800	92	7	3,400	69
Firewood	54	24,550	370	78	34,950	540
Other articles	857	1,89,525	2,713	573	1,59,170	2,505
Total	1,082	2,58,325	3,747	826	2,43,150	3,967

Nalhati State Railway.

*Statement showing Increases and Decreases in tonnage of Staples carried over the Nalhati State
Railway during the month of April 1890, as compared with the same month of the previous year.*

STAPLES.	1889.		1890.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1889.	1890.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal	228	.....	365	.....	228	365	137	.....
Cotton piece-goods—								
1.—European	43	1	67	1	44	68	24	.....
Grains—								
1.—Wheat	.....	7	1	4	7	5	.....	2
2.—Rice	11	59	63	169	70	172	102	.....
3.—Gram	.....	19	.....	13	19	13	.....	6
4.—Others	13	33	7	6	46	13	.....	33
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed	.....	5	1	3	5	4	.....	1
b.—Undressed	1	1	.....	.....	2	.....	.....	2
2.—Skins of sheep, goats and small animals—								
a.—Dressed	.....	.....	.....	1	.....	1	1	.....
Jute—								
1.—Raw	.....	5	.....	.....	5	.....	.....	5
2.—Gunny-bags and cloths	18	1	16	8	19	24	5	.....
Leather, manufactured	3	.....	2	.....	3	2	.....	1
Liquors—								
1.—Beer	1	.....	1	.....	1	.....	.....	1
2.—Wines	1	.....	.....	.....	1	.....	.....	.....
Metals—								
1.—Iron	10	.....	6	.....	10	8	.....	2
2.—Others	5	3	10	4	8	14	6	.....
Oils—								
1.—Castor	3	.....	1	.....	3	1	.....	2
2.—Kerosine	1	.....	.....	.....	1	.....	.....	1
3.—Others	19	.....	6	.....	19	6	.....	13
Oilseeds—								
1.—Linseed	8	107	9	68	115	77	.....	38
2.—Mustard and rape	62	.....	24	.....	62	24	.....	38
Provisions—								
1.—Ghee	2	.....	1	.....	2	1	.....	1
2.—Dried fruits and nuts	5	.....	1	.....	5	1	.....	4
3.—Others	13	.....	.....	.....	13	.....	.....	13
Paper and pasteboard	10	.....	4	.....	10	4	.....	6
Railway plant and rolling-stock	32	7	28	26	39	54	15	.....
Salt	73	.....	51	.....	73	51	.....	27
Silk, raw—								
1.—Indian	6	11	8	19	17	27	10	.....
2.—Indian	.....	6	1	3	6	4	.....	2
Stone and lime	.....	.....	10	.....	.....	10	.....	.....
Sugar—								
1.—Drained	36	.....	25	.....	36	25	.....	11
2.—Undrained	1	.....	11	.....	1	11	10	.....
Tobacco	2	.....	7	.....	2	7	.....	.....
Timber	.....	.....	58	.....	.....	58	.....	.....
Wool—								
1.—Raw	1	.....	1	.....	1	.....	.....	1
Umbrellas	.....	36	.....	35	.....	1	.....	.....
All other articles of merchandise	100	.....	239	.....	136	274	138	.....
Total	713	301	1,026	300	1,014	1,336	322	210

INCREASE.

Tons.

Coal 137
This is due to greater import owing to the previous stock being exhausted.
Cotton piece-goods—
(1) European 24
Owing to sudden demand in the local market.

PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 31st May 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	13,794	5,560 3 0	44,561 10	2,769 3 0	60 4 0	8,389 10 0	1,517	887	2,394
Or per mile of railway ...	241	97 3 4	779 0	48 6 7	1 0 10	145 10 0	.....	.....	.....
For previous 21 weeks of half-year ...	290,685	1,48,305 0 0	10,45,235 10	67,655 15 0	880 11 0	2,17,041 10 0	34,546½	15,741	50,286½
Total for 22 weeks ...	304,479	1,54,065 3 0	10,89,796 20	70,425 2 0	940 15 0	2,25,481 4 0	36,062½	16,618	52,680½
COMPARISON.									
Total for corresponding week of previous year ...	10,036	4,261 13 6	40,016 0	2,415 10 0	26 14 3	6,734 5 9	1,087	1,116	2,203
Per mile of railway corresponding week of previous year ...	175½	74 8 3	699 30	42 12 1	0 7 6	117 11 9	.....	.....	.....
Total to corresponding date of previous year ...	304,225	1,60,031 7 6	9,96,920 20	67,166 14 0	1,551 6 3	2,18,749 11 9	38,825	16,816	55,641

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	6,734	118	57½	8,390	147	57½	81,155	158	57½	10,801	188	15,046	.....

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 31st May 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	22,387	6,038 5 0	10,496 30	354 9 0	8 0 0	6,440 14 0	899	69	968
Or per mile of railway ...	.....	271 6 2	.....	15 10 0	0 5 9	287 10 11	.....	.....	.....
For previous 21 weeks of half-year ...	405,001	1,24,667 3 0	5,16,093 0	10,163 15 0	201 10 0	1,34,072 12 0	18,653	2,318	20,971
Total for 22 weeks ...	427,448	1,30,705 8 0	5,26,539 30	10,438 8 0	209 10 0	1,41,573 10 0	19,552	2,387	21,939
COMPARISON.									
Total for corresponding week of previous year ...	17,832	4,460 8 9	7,822 20	290 4 0	6 4 0	4,757 0 9	925	43	968
Per mile of railway corresponding week of previous year ...	.....	200 7 7	.....	13 0 9	0 4 6	213 12 10	.....	.....	.....
Total to corresponding date of previous year ...	503,195½	1,32,035 0 3	2,68,223 30	7,522 9 0	171 11 6	1,59,749 13 9	20,266	1,316	21,582

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	4,757	214	22½	6,401	283	22½	58,684	293	22½	60,110	300	1,526	.....

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTIONS.)

Approximate Return of Traffic for week ended 24th May 1890, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week...	131,329	65,650 0 0	5,50,900 0	80,960 0 0	14,200 0 0	1,66,810 0 0	22,764	3,537	24,301
Or per mile of railway...	176	88 0 0	737 0	116 0 0	72 0 0	205 0 0	.....	.....	.....
For previous 20 weeks of half-year...	*3,291,782	*15,46,426 0 0	*1,14,54,953 0	20,32,547 0 0	3,81,372 0 0	*39,74,345 0 0	448,169	613,682	1,061,851
Total for 21 weeks...	3,423,102	16,06,076 0 0	1,20,05,853 0	21,30,507 0 0	3,95,572 0 0	41,41,155 0 0	470,923	645,219	1,116,142
COMPARISON.									
Total for corresponding week of previous year...	132,274	62,385 0 0	4,84,289 0	85,302 0 0	13,881 0 0	1,61,568 0 0	21,518	24,688	46,206
Per mile of railway corresponding period of previous year...	197	93 0 0	729 0	127 0 0	73 0 0	223 0 0	.....	.....	.....
Total to corresponding date of previous year...	3,070,127	15,36,076 0 0	1,05,65,202 0	17,66,368 0 0	3,87,713 0 0	36,90,757 0 0	451,434	509,147	960,581

* Audited up to week ending 29th March 1890.
† Excluding steamer earnings.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 25TH MAY 1889.			RECEIPTS FOR WEEK ENDING 24TH MAY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH MAY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 24TH MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
673	1,61,568	240	747	1,66,810	223	673	12,85,349	239	747	13,96,145	234	1,10,860	.....

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 24th May 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week...	23,910	8,050 0 0	42,320 0	2,920 0 0	79 0 0	11,040 0 0	3,634	2,065	5,719
Or per mile of railway...	191	64 0 0	338 0	23 0 0	1 0 0	88 0 0	.....	.....	.....
For previous 20 weeks of half-year...	*566,233	1,90,583 0 0	*10,32,722 0	61,303 0 0	1,359 0 0	*2,53,245 0 0	70,658	40,511	111,169
Total for 21 weeks...	590,143	1,98,633 0 0	10,95,012 0	64,223 0 0	1,429 0 0	2,64,285 0 0	74,312	42,576	116,888
COMPARISON.									
Total for corresponding week of previous year...	25,825	9,354 0 0	61,829 0	3,868 0 0	30 0 0	13,232 0 0	3,684	2,068	5,672
Per mile of railway corresponding period of previous year...	207	75 0 0	495 0	31 0 0	.....	106 0 0	.....	.....	.....
Total to corresponding date of previous year...	602,317	2,07,131 0 0	11,97,796 0	69,402 0 0	4,815 0 0	2,81,348 0 0	77,037	40,710	117,747

* Audited up to week ending 29th March 1890.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 25TH MAY 1889.			RECEIPTS FOR WEEK ENDING 24TH MAY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH MAY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 24TH MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	13,232	106	125	11,040	88	125	1,93,697	194	125	93,826	94	.....	9,781

DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 24th May 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	13,380	4,240 0 0	11,239 0	1,090 0 0	170 0 0	5,410 0 0	2,434	670	3,104
Or per mile of railway ...	156	49 0 0	131 0	12 0 0	2 0 0	63 0 0	.....	.....	.....
For previous 20 weeks of half-year ...	*346,691	1,11,103 0 0	4,95,492 0	46,708 0 0	3,341 0 0	*1,61,151 0 0	47,533	15,948	63,481
Total for 21 weeks ...	350,071	1,15,342 0 0	5,06,722 0	47,708 0 0	3,511 0 0	1,66,561 0 0	49,967	16,618	66,585
COMPARISON.									
Total for corresponding period of previous year ...	13,335	4,164 0 0	13,685 0	670 0 0	58 0 0	4,892 0 0	2,528	2,249	4,776
Per mile of railway corresponding period of previous year ...	156	48 0 0	159 0	8 0 0	1 0 0	57 0 0	.....	.....	.....
Total to corresponding date of previous year ...	324,192	98,903 0 0	2,71,686 0	21,185 0 0	3,296 0 0	1,23,384 0 0	51,548	16,965	68,511

* Audited up to week ending 29th March 1890.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 25TH MAY 1889.			RECEIPTS FOR WEEK ENDING 24TH MAY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH MAY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 24TH MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	4,892	57	86	5,410	63	86	40,727	59	86	52,960	77	12,233	.....

NALHATI STATE RAILWAY.

Approximate Return of Traffic for the week ending 24th May 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	2,968	1,034 0 0	5,442 0	412 0 0	9 0 0	1,453 0 0	509	254	763
Or per mile of railway ...	109	38 0 0	200 0	15 0 0	.....	53 0 0	.....	.....	.....
For previous 19 weeks of half-year ...	64,937	23,538 0 0	2,48,225 0	14,965 0 0	2,152 0 0	40,605 0 0	16,017	9,410	19,427
Total for 20 weeks ...	67,905	24,422 0 0	2,53,667 0	15,377 0 0	2,161 0 0	41,960 0 0	16,526	9,664	20,190
COMPARISON.									
Total for corresponding week of previous year ...	3,311	1,302 0 0	12,575 0	795 0 0	11 0 0	2,008 0 0	509	418	927
Per mile of railway corresponding week of previous year ...	122	44 0 0	461 0	29 0 0	1 0 0	74 0 0	.....	.....	.....
Total to corresponding date of previous year ...	68,921	26,040 0 0	2,29,511 0	14,093 0 0	1,619 0 0	41,752 0 0	10,543	9,046	19,589

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 25TH MAY 1889.			RECEIPTS FOR WEEK ENDING 24TH MAY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 25TH MAY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 24TH MAY 1890.			Total increase in 1890-81.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	2,008	74	27½	1,453	53	27½	13,519	62	27½	15,247	61	.....	265

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for the week ending 31st May 1890, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	47,326	16,851 0 0	2,16,734 0	24,333 0 6	2,807 0 0	44,001 0 0	4,923	8,516	13,239
Or per mile of railway ...	173	62 0 0	794 0	89 0 0	3 0 0	154 0 0*	.....	.....	.....
For previous 20 weeks of half-year ...	960,898	3,91,864 0 0	52,32,018 0	6,03,220 0 0	66,561 0 0	10,61,649 0 0	100,677	190,525	308,202
Total for 21 weeks ...	1,008,224	4,08,619 0 0	54,48,732 0	6,27,533 0 0	69,368 0 0	11,05,749 0 0	111,600	204,841	316,441
COMPARISON.									
Total for corresponding week of previous year ...	42,302	15,611 0 0	2,34,486 0	19,733 0 0	4,466 0 0	39,800 0 0	4,881	8,326	10,707
Per mile of railway corresponding week of previous year ...	155	57 0 0	859 0	72 0 0	1 0 0	139 0 0*	.....	.....	.....
Total to corresponding date of previous year ...	943,109	3,55,064 0 0	33,38,142 0	3,25,849 0 0	84,212 0 0	7,05,125 0 0	114,927	123,914	238,841

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	39,800	146	273	44,001	162	273	3,52,746	144	273	4,06,521	165	63,775	.....

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.
Approximate earnings for week ending 17th May 1890	13,224
Corresponding period of 1889	15,199
Decrease	1,975
Receipts per mile for week ending 17th May 1890	
Corresponding period of 1889	Rs. A. P. 259 4 8 298 0 6
Decrease	38 11 10
Receipts from 1st January to 17th May 1890	
Corresponding period of 1889	1,91,093 1,94,850
Decrease	3,757



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JUNE 18, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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RESOLUTION ON THE ANNUAL REPORT ON THE LUNATIC ASYLUMS IN BENGAL FOR THE YEAR 1889.

RESOLUTION.

MEDICAL.

Darjeeling, the 6th June 1890.

READ—

Report on the Lunatic Asylums in Bengal for the year 1889.

Read again—

Report for 1888 and the Resolution recorded upon it.

The Lieutenant-Governor is much indebted to the Inspector-General of Civil Hospitals for the admirable punctuality with which this report has been submitted. Its bulk has slightly increased, but it has been compiled with much care, and His Honour would have been sorry to lose any of the suggestions and criticisms that it contains.

2. The population of the five lunatic asylums in Bengal has increased in the year under report. There were 957 persons detained in them on the 1st January, and during the year 225 were admitted and 22 readmitted, giving a total of 1,204 persons treated. This is the largest total that has yet been attained. The discharges numbered only 130 and the deaths 87, so that on the 31st December 1889 there was a population of 987. The daily average of patients was 972.63 as compared with 932.8 in 1888, and the percentage of recovery on the daily average strength rose from 7.18 in 1888 to 9.45 in 1889. At Dacca and Cuttack further accommodation for the inmates of the asylums has already been provided, and a proposal is now under consideration for the enlargement of the institution at Berhampur.

3. In a series of interesting paragraphs which have been illustrated by full statistics, Dr. Hilson has again entered on the troublesome question of the large increase in the criminal population of Bengal asylums, and has pointed out that while admissions have not been excessive in the past year, there have been very few discharges. The criminal lunatics in asylums in Bengal at the end of 1889 numbered 440 as against 276 in 1879 and 363 in 1884, an increase of 59·42 per cent. in ten years, or 21·21 in five. The Inspector-General is of opinion that this is due in part to the insufficient relief given by the rules framed by the Committee appointed in 1888 to enquire into this question. Dr. Hilson's remarks in these paragraphs will be submitted to the Committee for their opinion, but the Lieutenant-Governor thinks it too early to come to any definite conclusion on the effect of the system which they have introduced, and would be unwilling to modify it except on very strong reason being shown. In the meantime, however, the comparison which Dr. Hilson has instituted between the figures he has obtained of the proportion of criminal lunatics admitted to the asylums of other provinces shows that the proportion in Bengal is far higher than in any of those provinces, and His Honour would be glad if the Inspector-General would follow up the question and ascertain in what respect the rules of admission and discharge of criminal lunatics in other parts of India differ from those in force in Bengal.

4. The difficulty of classifying the different forms of insanity has not been removed by the new nomenclature given by the College of Physicians of London, and it is clear that uniformity of classification will not be secured until some arbitrary definition of the various types of insanity is prescribed. The figures that are dependent on the new nomenclature are consequently useless, and the inconsistencies noticed by the Governor-General in Council in the report of 1887 still exist. Dr. Hilson has already dealt with the subject fully in his report for the year 1888, and has shown how impossible it is, under the present conditions, to place any reliance on the returns made on this subject. As far as can be ascertained, the use of intoxicating drugs is as potent a cause of insanity as ever, no fewer than 89 admissions being traced to this cause.

5. The figures and paragraphs in which Dr. Hilson has dealt with the sickness and mortality in these asylums form perhaps the least satisfactory portion of the report. It is impossible to compare the figures of sickness with those of previous years owing to a change which has been made in the method of preparing the returns; but there are reasons to suppose that the rate of admissions to hospital was generally higher than in 1888, and the daily average number of sick, 69·55, is high. The mortality rose from 7·93 in 1888 to 8·94 in 1889, and this rise is largely due to the heavy death-rate in the asylums at Patna and Berhampur, and the Lieutenant-Governor notices the increased number of deaths in these two asylums with much regret. In Patna it is suggested that the dampness of the wards in connection with the repairs may have had something to do with its unhealthiness, and at Berhampur the Inspector-General attributes it to the defective sanitary condition of the asylum, and to some extent to overcrowding during the year. In regard to the latter asylum, Sir Stuart Bayley hopes that the proposals now under the Superintendent's consideration for remedying the defects that have been pointed out will be put before Government in a practical form with the least possible delay, and that every effort will be made to prevent a recurrence of the lamentable epidemic of the past year.

6. Had it not been for four escapes from the Dullunda Asylum, the record of such incidents would have been a very good one in the year under report. The Lieutenant-Governor fully agrees with the remarks made by the Inspector-General of Civil Hospitals on the subject of accidents and escapes in asylums, and hopes that increased attention to the classification and segregation of violent lunatics may have the effect of diminishing their number and their seriousness.

7. The total expenditure on the asylums was Rs. 79,163-15-8 against Rs. 74,067-8-1 in 1888, showing an increase of Rs. 5,096-7-7, which is said to be due to the increased number of patients treated, and to the comparatively high price of food. The expenditure on account of public works rose from Rs. 6,668-14-4 in 1888 to Rs. 10,224-6-2 in 1889, owing to certain

additions and alterations in the Patna and Cuttack Asylums, and to the quadrennial repairs of the buildings at Berhampur. The figures given of receipts and expenditure under the head of Manufactures are not satisfactory. The total credits show a surplus over the total debits of only Rs. 3,491-13-8. The Lieutenant-Governor would be glad to receive detailed proposals for improving the position of the keepers at Patna and Berhampur; it should be shown how the necessary expenditure could be met by reductions in other directions.

8. His Honour is glad to see the favourable terms in which the Inspector-General acknowledges the general efficiency of the Superintendents and their subordinates in the discharge of their duties.

9. The European Asylum at Bhowanipur is, as usual, dealt with in a separate series of paragraphs at the end of the report. The past year was an uneventful one. The population was slightly smaller than in the previous year, and the proportion of recoveries among the patients showed a serious diminution, due, it is said, to the admission of a larger number of females during the year. The Superintendent reports that they are found to suffer more frequently than males from the chronic and incurable forms of insanity. The asylum has been financially well managed, the increase in expenditure being more than covered by the increase in the receipts from paying patients, and the expenditure debitable to Government has been proportionately reduced. The health of the inmates was excellent, and the Lieutenant-Governor has no doubt that the commendation that is bestowed by the Inspector-General of Civil Hospitals on the general management of the asylum has been well deserved.

ORDER.—Ordered that a copy of this Resolution, together with a copy of the report, be submitted to the Government of India, Home Department.

Ordered also that a copy of this Resolution be forwarded to the Inspector-General of Civil Hospitals, Bengal, for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

Offg. Chief Secy. to the Govt. of Bengal.

RESOLUTION ON THE REPORT ON THE WORKING OF THE CHITTAGONG HILL TRACTS POLICE FOR 1889.

POLITICAL.

Dated Darjeeling, the 11th June 1890.

READ—

Letter No. 52HP, dated the 23rd February 1890, from the Commissioner of Chittagong, and enclosure, submitting the Departmental Report on the working of the Police of the Chittagong Hill Tracts for the year 1889.

Read also—

The Report for 1888 and the Resolution recorded thereon.

The operations against the hill tribes beyond the frontier, undertaken during the cold weather of 1889, resulted in the establishment of a new permanent post at Lungleh in the Lushai country and two new temporary outposts, one at Lungsing, on the new road between Demagri and Lungleh, and the other at Jourmarong up the river Changree. As 200 men were required to garrison Fort Lungleh, two temporary outposts, Ohipoom and Khagrasurry, had to be abolished, and a third, Palitye, could not be occupied up to the end of 1889.

2. The sanctioned strength of the Frontier Police during 1889 was the same as in the previous year, namely 539. The force was 45 under strength at the close of the year, against 18 in 1888 and 19 in 1887; and of the actual strength of 494 men, 31 were unpassed recruits. A recruiting party was formed, and it was arranged that it should proceed to Chumparun to enlist 70 men to fill up existing and expected vacancies. The party could not, however, leave the district till the beginning of the current year, as most of the men comprising it had to be deputed to Lungleh to complete the sanctioned strength of that post.

3. Owing to the importance of the duties on which the men of the force were engaged, none of them could be collected at head-quarters on the 1st June for the purpose of the usual drill instruction. The men stationed at Ruma, Demagri and Lungleh, however, were put through company drill, manual firing, bayonet exercises, and position and squad drill as usual, and the 31 unpassed recruits are being taught drill daily at Rangamati. Owing to unavoidable circumstances the majority of the Frontier Police could not go through the customary course of firing practice in the year. One hundred and eighteen men stationed at Rangamati, Ruma and Demagri did some target practice, but there was no European officer available to superintend the firing at Ruma. At the remaining posts there are no ranges, and consequently nothing could be done in this direction.

4. The Lieutenant-Governor regrets to learn that the experience of the past year tends to prove that the privilege of free passes by railway and steamer which has been granted to men who wish to rejoin the force after long leave in Nepal is not appreciated, and does not operate as an inducement to such men to return. His Honour awaits the special report on the subject which has been promised by the Commissioner.

5. Despite the very arduous duties which have fallen to the lot of the Frontier Police during the past year, and the number of admissions to hospital which were the direct result of wounds or ailments resulting from the severity of the work the men had to perform, the total admissions to hospital and the rate of mortality have not increased. The daily average number of sick in hospital and the average number of days spent in it by each patient are higher than last year, but the increase is not so great as might well have been expected. The figures below give a comparative statement for the last three years—

	1887.	1888.	1889.
Deaths	14	27	26
Admissions into hospital ...	2,361	2,609	2,153
Daily average of sick	52	53	67
Average number of days spent by each patient	7.5	7.7	8.5

The newly-opened hospital at Lungleh admitted 648 patients during the last eight months of the year; but as a considerable number of these were suffering from wounds and ulcers, the general health of the force at Lungleh may be held to have been satisfactory.

6. Imported coolies from the Sonthal Pergunnahs were employed during the year in clearing jungle and making roads. It speaks well for the treatment they experienced at the hands of the local officers that a large number of the former gang should have returned. They did excellent work, and appeared to be fully satisfied with the conditions under which they were required to perform it.

7. There were no changes in the distribution of the Civil Police during the year. They continued to do the usual simple duties which have been entrusted to them in the absence of a staff of peons and chuprasis in the hill tracts, and were also employed on some miscellaneous work in connection with the Lushai Expedition.

8. In paragraph 20 of the Report, a detailed account is given of the duties performed by the Frontier Police in connection with the operations in the Lushai country. This is a matter which will be dealt with in the Resolution reviewing the Administration Report of the Chittagong Hill Tracts for the past year. The Lieutenant-Governor desires, however, to record his high appreciation of the good services rendered by the force and of the excellent work done by it on many important occasions. Sir Stuart Bayley is fully alive to the arduous and responsible duties entailed on the men in consequence of the disturbed state of the frontier, and he is glad to observe that the force has always been found to be equal to the task imposed on it, and able to maintain its reputation as a thoroughly efficient body.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Commissioner of the Chittagong Division for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

Offg. Chief Secy. to the Govt. of Bengal.

RESOLUTION ON THE ANNUAL REPORT OF THE BOTANIC GARDENS
FOR THE YEAR 1889-90.

FINANCIAL DEPARTMENT—MISCELLANEOUS.

Darjeeling, the 14th June 1890.

RESOLUTION.

READ—

The Annual Report of the Botanic Gardens for the year 1889-90.

Dr. King's report, which will as usual be published in the Gazette, gives an interesting account of the work done during the past year. The gardens have been maintained in a high state of efficiency, the herbarium in particular has been especially attended to, and organised exploration in Burma and Assam has added to it some valuable collections. Under the recent order of the Government of India this exploration will be extended. The control of Indian botanical operations has been centralised in the Calcutta Gardens, and the Superintendent has been appointed Director of the Botanical Survey of India. The grants promised by the Administrations of Burma and Assam will enable collections to be made on a larger scale and more continuously. As this work will constitute a separate Department, it has been ordered that in future years a separate report should be submitted on the subject.

2. During the year Dr. King issued a monograph on jack-fruits, oaks and chestnuts of the Indo-Malayan region. This forms the second volume of the Garden annals. The third and concluding part of his monograph of the genus *Ficus* has lately been issued. Dr. Prain has also published several important papers which are described in the Superintendent's Report.

3. The thanks of the Lieutenant-Governor are due to Dr. King, and to his able Assistant, Dr. Prain, for the very thorough and successful discharge of their duties throughout the year.

ORDER.—Ordered that a copy of this Resolution, and of the Report, be submitted to the Government of India, in the Revenue and Agricultural Department, for information.

Ordered also that a copy of this Resolution be forwarded to the Superintendent of the Botanic Gardens for information.

By order of the Lieutenant-Governor of Bengal,

H. J. S. COTTON,

Secretary to the Government of Bengal.

No. 17G, dated Seebpore, the 14th May 1890.

From—BRIGADE-SURGEON GEORGE KING, M.B., LL.D., F.R.S., C.I.E., Superintendent,
Royal Botanic Garden, Calcutta,

To—The Secretary to the Government of Bengal, Financial Department.

I HAVE the honour to submit herewith the one hundred and third Annual Report of the Botanic Gardens, Calcutta and Darjeeling.

ANNUAL REPORT OF THE ROYAL BOTANIC GARDEN, CALCUTTA, FOR THE YEAR
1889-90.

No new work of much importance was carried out in the garden during the year, and the attention of the staff was chiefly devoted to the maintenance, in as high a state of efficiency as possible, of the various departments of the garden. The display of orchids was by far the finest that has been seen in the garden since I took charge of it nineteen years ago. This improvement is due partly to the great recent extension of correspondence and interchange with Collectors, both in India and outside its borders, and partly to improvements in our conservatories and in our methods of cultivation. The number of tropical South American orchids in the collection is steadily increasing; and our accessions have been obtained for the most part by exchange for indigenous species. Much labour and material have been expended on the roads within the garden. It is, however, a matter of great regret that the new road leading to the garden along the river bank remains still incomplete by the Department

of Public Works. The completion of this road would greatly increase the number of visitors; for there is no doubt that the crowded condition of the present route through the narrow bazars of Howrah, Ramkrishnapore and Seebpore acts as a deterrent to many. The last of the disputes as to boundaries of the garden having, by the advice of the Legal Remembrancer, been settled by compromise, it only now remains to prevent the recurrence of any encroachments in future by the erection of a proper boundary fence. Estimates for this work are understood to be in preparation by the Executive Engineer in charge of the Workshop Division.

2. *Economic plants*.—A considerable correspondence regarding plants of economic interest of various sorts forms part of the regular work of the Superintendent. During the past year there has been no diminution of this. And the issues of economic plants themselves to Government officers and to others have been considerable. The cheap and efficient extraction of rhea fibre still remains an unsolved problem; and I am informed by Colonel Cadell, v.c., Chief Commissioner of the Andamans, that the working of the French machine so generously presented to the Settlement there by Sir Walter deSouza has not hitherto been very successful. A process involving the use of very simple machinery is understood to be under trial by private enterprise in Bengal; but, with what promise, I have not yet heard. The cultivation of the species of plantain which produces the fibre known as *Manilla Hemp* is receiving a patient and extended trial under Colonel Cadell's fostering care in the Andamans; and I trust the result may prove favourable. The use of *Sabai*, *Bhabur* or *Babui* grass, which was first suggested as a good raw material for paper-making in the annual reports of this garden, has now become fairly established; and large quantities are regularly purchased by the various paper mills in Northern India. As yet, however, this fibre does not appear to form an article of export.

3. *Herbarium*.—From a scientific view the collection of dried and named plants is the most important feature in a Botanic Garden. But it is the feature which has the least amount of interest for the general public. Very few of even the most regular visitors to this garden have ever been inside the building in which the Calcutta Herbarium is housed, and they know little of the extent and importance of the collection. It may not be out of place therefore to give a brief account of its recent progress. Up to the year 1882, the Herbarium was crowded in a small and totally insufficient building. During the late Sir Ashley Eden's tenure of office as Lieutenant-Governor, an admirable new structure, modelled to some extent on the new Herbarium building at Kew, was erected in the garden. At the time when the mounted collection was removed from the old into this new building it was accommodated in 93 cabinets. It now fills 186 cabinets, uniform in size with the former 93; and the number of specimens is estimated at considerably more than half a million. And there is, over and above, a very large number of specimens in boxes and open shelves which have not yet been examined or named. Fresh consignments of specimens are continually arriving; and, in view of the recent orders of the Government of India for the botanical exploration of Burma and Assam, for the centralization (on the recommendation of the authorities at Kew) of Indian botanical operations in the Calcutta garden, and for the appointment of its Superintendent as Director of the Botanical Survey of India, accessions at a still increased rate are inevitable. The treatment of the material thus received involves not a little mechanical labour, and an amount of critical botanical work of which none but an expert can form any just idea. Specimens, on arrival, have to be accurately ticketed and to be laid out on sheets of paper for being mounted. That is mechanical work, and is to a large extent done by comparatively unskilled labour, under supervision of course. But, after having been mounted and poisoned, the specimens have to be arranged according to natural families, and finally referred to their genera and species. This is botanical work, and it can be done only by a skilled botanist. Moreover, it can be done quickly and accurately only by a botanist of experience. It takes many years to acquire such experience when a Flora so varied and extensive as that of India has to be dealt with, comprising as it does more than 14,000 species of flowering plants, to say nothing of the still more numerous flowerless species. Several specimens of each species are usually received in every gathering, and these are disposed of in the following way. One or more is incorporated in the general Herbarium, while the duplicates are distributed to other Herbaria,

either in India or in Europe. The distribution of named specimens of Indian plants to the great Herbaria located at the centres of botanical science in Europe is much appreciated by European botanists. The working of this on any considerable scale has, however, been possible only for the past three years, during which time I have had the advantage of the services, as Curator of the Herbarium, of Dr. D. Prain, who is at once an accomplished botanist and an energetic man. But, even with Dr. Prain's help, the work is getting very heavy, and it may be necessary before long to apply for the services of yet another botanist. During the year under review the following named specimens have been issued :—

Herbarium, Royal Gardens, Kew (<i>new and critical species only</i>)	...	459
Herbarium, Royal Botanic Garden, Peradeniya	...	405
Herbarium, Saharanpur	...	660
Government Central Museum, Madras	...	103
Herbarium, Botanic Garden, Singapore	...	361
Government Museum, Perak	...	286
College of Science, Poona	...	50
C. Curtis, Esq., Forest Department, Penang	...	123
J. S. Gamble, Esq., Conservator of Forest, Madras	...	88
W. A. Talbot, Esq., Deputy Conservator of Forests, North Canara	...	95
R. H. Hullett, Esq., Principal, Raffles Institute, Singapore	...	14
G. Mann, Esq., Conservator of Forests, Assam	...	200
Dr. G. Watt, C.I.E., Simla	...	25
British Museum, London	...	507
Herbarium, Imperial Gardens, St. Petersburg	...	739
Do. do. (<i>specially asked for</i>)	...	86
Smithsonian Institution, Washington, U. S. A.	...	707
Royal Botanical Museum, Berlin	...	509
Herbarium, Jardin des Plantes, Paris	...	432
Royal Botanical Museum, Florence	...	90
Royal Herbarium, Leiden	...	539
Imperial Herbarium, Vienna	...	328
Herbarium of the University of Cambridge	...	272
Herbarium of the University of Edinburgh	...	254
Herbarium of the University of Upsala	...	220
Herbarium of the University of Aberdeen	...	180
Herbarium of the University of Utrecht	...	123
Herbarium of M. A. de Condolle, Geneva	...	634
Herbarium of Signor O. Beccari, Florence	...	491
Herbarium, Botanic Garden, Buitenzorg	...	246
		9,226

On the other hand, 6,060 specimens have been received from various contributors, amongst whom the chief are the Director of Kew, the Director of the Botanic Garden, Singapore, the Curator of the Museum at Perak, Mr. Curtis, of the Penang Forest Department, Messrs. J. Sykes Gamble, Gustav Mann and W. A. Talbot, of the Indian Forest Department. Dr. Prain has also, in connection with the botanical survey, collected 808 plants. The determination and description of hitherto undescribed species is a very important part of herbarium work, eliciting, as it does, whatever botanical acumen and sagacity a man may possess. A considerable number of new species have been described during the year. As regards publications, a monograph by the Superintendent, of the Jack-fruits, Oaks and Chestnuts of the Indo-Malayan region has been issued during the year. This forms the second volume of the Garden Annals, and is illustrated by 104 quarto figures, drawn by the garden artists, and lithographed mostly at the Government School of Art. The third and concluding part of the Superintendent's monograph of the genus *Ficus* has also been issued; and to this is appended a most important memoir by Dr. D. D. Cunningham, F.R.S., on the mode of fertilization in one of the species. Dr. Prain has published a most interesting paper on new species of *Pedicularis*, and another on the Flora of the Laccadive Islands; and he has prepared, with reference to a suggestion of the Agricultural Department of the Government of India, papers on the Non-indigenous Element in the Andamans' Flora and on the Flora of Diamond Island. He has besides elaborated a large and important monograph of the difficult and extensive genus *Pedicularis*. This is at present passing through the press, and will soon be published in the third volume of the Garden Annals.

Botanical collections in Burma and Assam.—The Government of India, in the Agricultural Department, having made over to the garden the sum of Rs. 1,000 for the purpose of collecting specimens in Burma and Assam, I was enabled to do more than usual in both these provinces. In Burmah a native Collector was sent into the Shan Hills, and a good many interesting specimens were obtained. The country was still, however, rather too unsettled for very successful collecting. Dr. Prain personally visited Diamond Island, the Andaman Islands, and also the Great Coco and Table islands which lie to the north of that group, and which were previously botanically unknown. Dr. Prain secured good collections in all these localities, and, as already stated, he has prepared some results of these visits for publication. In Assam, the exploration grant was expended in maintaining a native collector in the Aka Hills, under the supervision of Mr. Penny. The collector was, however, unable to penetrate far into the Aka country. A Eurasian collector was also subsidised in Cachar.

5. *Library.*—The library has been entirely rearranged; many tracts and small memoirs, hitherto uncatalogued, have been incorporated; and a fresh catalogue has been prepared by Dr. Prain. A large number of volumes have also been rebound, and a few new books have been acquired.

6. *Interchange of plants and seeds.*—From the distribution lists attached as appendices to this report, it will be seen that the issues of packets of seeds during the year amounted to 3,619 as against 2,075 for the previous year; and that no fewer than 58,901 living plants were distributed, as against 31,183 during 1888-89. Both plants and seeds were issued mostly for public purposes. Sales to private persons of plants which are easily obtainable from private nurseries are not encouraged, as it is not desired to interfere with commercial enterprise. Packets of seeds to the number of 1,282 and 13,392 living plants were received during the year, both numbers being thirty per cent. in excess of those of last year.

ANNUAL REPORT OF THE LLOYD BOTANIC GARDEN, DARJEELING.

7. Mr. W. A. Kennedy was in charge of the Botanic Garden at Darjeeling for nine months of the year. During the remaining three months Mr. Kennedy was on privilege leave in Europe, and his duties as Curator were performed by Mr. Hartless, one of the assistants on the Cinchona Plantation. Both Messrs. Kennedy and Hartless, in addition to their duties in the garden itself, devoted a good deal of attention to the general improvement of the station of Darjeeling by planting young trees in all hopeful spots. This is, however, a very difficult and, I fear to some extent, a thankless task; for the present happiness and unbridled liberty of milk cows and goats is considered by many of the residents as of more consequence than the future amenity of the station.

8. The sum provided in the budget for the maintenance of the gardens, both at Calcutta and Darjeeling, was spent in full. And the whole of the additional sum of Rs. 1,000, contributed by the Government of India for botanical collections in the provinces of Assam and Burmah, was also expended. The estimated receipts (Rs. 1,700) were almost realised, there being a shortcoming of only Rs. 46-5.

9. Dr. Prain was in charge of the Herbarium and library during the year, and worked with untiring zeal. As I have explained in paragraph 3, the present efficient condition of the scientific department of this institution is very largely due to the skill and energy of this officer. I have also to acknowledge the efficient assistance in comparing specimens of various difficult and obscure plants given during the year by Mr. W. Botting Hemsley, F.R.S., Indian Assistant at the Royal Herbarium, Kew. Messrs. McHardy and Proudlock have respectively carried on the duties of Curator and Assistant Curator of the garden during the year with much enthusiasm and energy. Baboos Gopal Chandra Dutta, the head of the office establishment, and Prosonno Coomar Sein, the garden overseer, both discharged their duties admirably. The latter, I greatly regret to say, died from the effects of a severe attack of influenza shortly after the year ended. Man and boy he had been connected with the garden for fifty years, and in him Government lost a faithful servant of the good old school. Innocent of the kind of information by which now-a-days a University degree is secured, and conservative to the last degree of old customs and ways of thinking, the Baboo possessed an amount of knowledge of plants, and of their cultivation and uses, which it is quite unusual to find amongst native gentlemen of the present day.

REVIEW OF THE TRANSACTIONS OF THE FINE FUND OF THE
PROVINCIAL STATE RAILWAYS FOR 1889-90.

No. 1231 R.A.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

RAILWAY—Accounts.

Calcutta, the 4th June 1890.

RESOLUTION.

READ—

Government of India, Financial Department's Resolution No. 427, dated 28th June 1880.

Letter No. 2402, dated 15th April 1890, from the Manager, Tirhoot State Railway.

Letter No. 1537, dated 17th April 1890, from the Manager, Nalhati State Railway.

Letter No. 364, dated 17th May 1890, from the Manager, Eastern Bengal State Railway.

Read also—

Resolution No. 1579 R.A., dated 3rd June 1889.

OBSERVATIONS.—The reviews of the transactions of the Fine Fund of the railways under the control of the Government of Bengal for the year 1889-90 have been received from the Managers with their letters quoted above, and are on the whole satisfactory.

2. The transactions of the funds are summarised below:—

RAILWAYS.	RECEIPTS.				EXPENDITURE.			Balance at end of 1889-90.
	Balance on 1st April 1889.	Fines.	Interest.	Total.	Disbursements.	Refunds.	Total.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tirhoot State Railway	1,132 7 3	1,912 13 6	24 6 0	3,069 10 9	2,674 0 8	43 8 9	2,717 9 5	352 1 4
Nalhati State Railway	62 10 5	57 0 9	0 12 1	100 13 3	86 8 0	.....	86 8 0	14 5 3
Eastern Bengal State Railway ...	6,952 7 4	5,768 12 1	225 14 3	12,947 1 8	7,913 8 8	68 2 0	7,981 10 8	4,965 7 0

The amount of fines realised during the year is less than during the previous year, with the exception of the Tirhoot State Railway, on which there has been an increase of Rs. 473-9-11.

3. Under the head of Expenditure the principal disbursements have been as follows:—

Tirhoot State Railway.—Institute Rs. 1,850; amusements Rs. 300; volunteering Rs. 100; overcoats to station staff Rs. 400.

Nalhati State Railway.—Schools Rs. 70; institute Rs. 16.

Eastern Bengal State Railway.—Institute Rs. 2,017; schools Rs. 3,253; amusements Rs. 250; clothing Rs. 1,470; bonuses to employes Rs. 524; entertainments Rs. 400.

RESOLUTION.—In the Resolution of the 3rd June 1889, it was observed that though the balance of the fund on the Eastern Bengal State Railway had been reduced, it was susceptible of further reduction, and that there was a tendency to increase the balance on the Tirhoot State Railway. The attention of the Managers was therefore drawn to the expediency of keeping the balances as low as possible.

The Lieutenant-Governor is glad to observe that during the current year the instructions given have been acted upon, and that large disbursements have been made on both the Eastern Bengal and Tirhoot State Railways. On the former line, in addition to large grants to the Institutes and Schools, European and Native, Rs. 1,470 were expended in supplying blankets to menials employed in outdoor work, and Rs. 524 given as bonuses to employes and their families in need of pecuniary assistance through injuries or loss of employment.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Government of India, in the Public Works Department, and to the Managers, Eastern Bengal, Tirhoot, and Nalhati State Railways, for information, and that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

E. J. MARTIN,

Joint-Secy. to the Govt. of Bengal,

P. W. Dept.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 14th June, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
<i>Western Districts.</i>			
BURDWAN DIVN.	1 Burdwan June 14, '90	3.88	Weather—hot and seasonable with rain. Monsoon seems to have commenced. Sowing of <i>amun</i> and <i>aus</i> going on. <i>Til</i> and sugarcane doing well. Prices of common rice:—
	Culna ...	1.10	
	Cutwa ...	2.52	
	Ranigunge ...	1.78	
	2 Bankoora „ 14, '90	2.14	Weather—much cooled down and cloudy. Ploughing and sowing of <i>aus</i> and <i>amun</i> rice going on; young seed plants are coming on well. <i>Boro</i> rice is being reaped. Indigo and sugarcane thriving. Common rice 18 seers per rupee at Sudder and 17 seers at Bishenpore.
	3 Birbhum „ 14, '90	1.28	Weather—still stormy. Ploughing and sowing of <i>amun</i> rice going on very briskly. Prices of rice remain at 16 to 20 seers per rupee.
	Rampore Haut ...	1.70	
	4 Midnapur „ 14, '90	1.48	Weather—seasonable. Rains have set in. Ploughing going on everywhere. <i>Aus</i> rice coming up well and still being sown. Indigo, jute and mulberry doing well. Prices of common rice:—
			Srs. Sudder ... 17 Contal ... 19 Tumlook ... 13½ Ghatal ... 16 } per rupee.
	5 Hooghly „ 14, '90	1.10	Weather—cool, cloudy and rainy. Ploughing making progress. Prices of common rice:—
	Serampore ...	2.46	
	Jehanabad ...	1.51	
PRESIDENCY DIVN.	Howrah „ 14, '90	2.09	Weather—showery. <i>Aus</i> and <i>amun</i> seedlings and sugarcane plants benefited by recent rain. Prospects good. Coarse rice 14 to 15 seers per rupee.
	<i>Central Districts.</i>		
	6 24-Perghs. June 17, '90	1.71	Weather—hot and showery. Prospects of all crops favourable. Lands are being prepared for late rice and sowing has commenced in low lands.
	7 Nuddea „ 14, '90	0.71	Weather—generally cloudy with occasional rain. Prospects of early rice and jute promising. Rain has done much good.
	Kushten ...	4.59	
	Meherpore ...	2.85	
	Chudanga ...	1.37	
	Hanaghat ...	4.24	
	8 Khoolna „ 14, '90	2.21	Weather—seasonable. <i>Aus</i> and <i>amun</i> paddy, jute, and sugarcane coming up. Prospects good.
	Satkhira ...	2.79	
RAJSHAHY DIVN.	Bagirhat ...	1.28	
	9 Jessore „ 14, '90	2.13	Weather—hot and cloudy with occasional showers. The rainfall of the week has done much good to the young plants of <i>aus</i> , <i>amun</i> , jute, and indigo. Prospects good. <i>Aus</i> has been sown on the normal area and <i>amun</i> to the extent of 13 annas.
	Jhenidah ...	2.35	
	Magura ...	4.67	
	Narail ...	2.74	
	Bongong ...	1.74	
	10 Moorshedabad „ 14, '90	2.29	Weather—hot and cloudy. <i>Aus</i> rice nearly all sown and plants germinating. Recent rain beneficial. More wanted.
	11 Dinagepur „ 14, '90	4.71	Weather—hot during the latter part of the week. Prospects of crops continue to be good. Price of rice at Sudder and Thakurgaon stationary.
	Thakurgaon ...	4.83	
	12 Rajshahye „ 14, '90	4.68	Weather—seasonable. The rains have commenced with heavy falls. Sowing of both <i>aus</i> and <i>amun</i> very nearly completed. Jute and all other standing crops thriving well; a break in the weather is necessary for weeding.
	Nattore ...	4.54	
	Nowgong ...	2.94	
	13 Rangpur „ 14, '90	5.90	Heavy and almost incessant rain in the earlier part of the week, afterwards a break, with occasional showers. Considerable damage has been done to paddy and jute in the north-east by excessive rainfall. Dry weather is now much wanted to admit of the transplantation of <i>amun</i> paddy and the steeping of jute. The latter operation has begun, and in 10 days or so there will be new jute in the market.
	Kurigram ...	14.92	
	Gaibanda ...	2.61	
	Nilphamari ...	11.35	
	14 Bogra „ 14, '90	2.38	The rains appear to have set in. Jute and <i>aus</i> rice doing very well. <i>Amun</i> rice is being sown. All prospects are favourable. Common rice selling at 18 seers per rupee.
	Sherpur ...	2.15	
	Nowkhilla ...	2.31	
	15 Pubna „ 14, '90	5.92	Weather—hot and cloudy. Standing crops doing well. Prices stationary.
	16 Darjeeling „ 14, '90	3.88	Weather—rainy with occasional breaks. <i>Bhutia</i> , <i>chota marwa</i> , and <i>bhadoi</i> doing well. Potatoes are in flower, but suffering somewhat from the rain.
	17 Julpigoree „ 14, '90	14.87	Weather—hot and sometimes rainy. <i>Bhadoi</i> , paddy, and jute generally doing well. Prices stationary.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca June 14, '90	2.31	Weather—hot and mostly cloudy. Rice and jute thriving. <i>Aus</i> on chur lands being harvested. Chillies being gathered. Common rice 12 to 17 seers per rupee.
	19 Farreedpur „ 14, '90	4.23	Weather—seasonable. Prospects of standing crops favourable. Rivers rising fast. Price of rice stationary.
	20 Backergunge „ 14, '90	1.79	Weather—hot with occasional showers. Prospects of crops good. <i>Aus</i> rice looking well. Common rice selling at from 12 to 16 seers per rupee.
	21 Mymensingh „ 14, '90	5.83	Weather—rainy and seasonable. State and prospects of crops good; but if there be more rain, some damage may be done to young plants. Common rice selling at 13½ seers per rupee.
Chittagong Divn.	22 Chittagong „ 14, '90	1.02	Weather—seasonable. Prospects of <i>pania aus</i> good. Price of common rice steady.
	23 Noakholly „ 14, '90	3.38	Weather—warm and sultry; cloudy at times. Sowing of <i>amun</i> continues. State of the <i>aus</i> plants is reported to be good. Price of rice stationary.
	24 Tipperah „ 14, '90	2.32	Weather—cloudy, cool and wet. <i>Aus</i> , <i>amun</i> , and jute doing well. Prices stationary.
	25 Chittagong Hill Tracts „ 12, '90	2.03	Weather—cloudy throughout the week, with occasional shower. <i>Jum</i> paddy and cotton progressing. Common rice is being sold at 12 seers 5 chittacks per rupee.
	Hill Tipperah ...	...	Report not received.
BEHAR.			
PATNA Divn.	26 Patna „ 14, '90	0.53	Weather—very hot and sultry. Harvesting of <i>cheena</i> continues in the Behar subdivision. Transplanting of <i>marua</i> has commenced in some places. Other <i>bhadoi</i> crops are being sown. More rain wanted. Prices of food-grains almost stationary.
	Barh „ ...	0.65	
	Behar „ ...	0.10	
	27 Gya „ 14, '90	0.99	Weather—hot. Sugarcane doing well. <i>Marua</i> being sown. Prices of food-grains stationary.
	28 Shahabad „ 14, '90	0.14	Weather—hot. Sugarcane doing well. Lands are being prepared for <i>bhadoi</i> sowings.
	Buxar „ ...	Nil	
	Sasseram „ ...	0.65	
	Rhabuah „ ...	0.25	
	29 Durbhanga „ 14, '90	3.10	Weather—cloudy with east wind. Prospects of early paddy and <i>mung</i> much improved by the rain. <i>Bhadoi</i> sowings are being pushed on. Indigo coming on well. Prices rising.
	Madhubani „ ...	3.48	
BHAGALPORE Divn.	Somastipur „ ...	0.38	
	30 Mozufferpur „ 14, '90	2.18	Sitamarhi and parts of the Sudder subdivision have had good rain, and there have been showers elsewhere. The heavy rain has been most beneficial. Sowing of rice, <i>mung</i> , <i>makai</i> , <i>marua</i> , and other crops proceeding. Prospects good everywhere.
	Hajipur „ ...	0.43	
	Sitamarhi „ ...	2.47	
	31 Saran „ 14, '90	1.49	Weather—sultry and cloudy. Heavy storms of rain in places. <i>Bhadoi</i> being sown everywhere, and in some places germinating. Indigo improved by the rain.
	32 Champaran „ 14, '90	2.26	Weather—very hot; cloudy and rainy at times. A good shower of rain last night (13th). Sowing of <i>bhadoi</i> and <i>aghani</i> still progressing. Indigo <i>makai</i> commenced with good prospects. Prices of rice have risen a little.
	Bettiah „ ...	2.63	
	33 Monghyr „ 14, '90	1.57	Weather—seasonable. The rain has done much good. Prospects now favourable.
	Begusarai „ ...	1.29	
	Jamui „ ...	0.60	
	34 Bhagulpur „ 14, '90	1.18	Weather—hot with some heavy showers. <i>Bhadoi</i> sowings germinating well in places, and being completed elsewhere. Prospects at present decidedly good.
	Banka „ ...	0.52	
	Mudhepura „ ...	4.85	
	Sooopool „ ...	1.94	
	35 Purneah „ 14, '90	6.99	Weather—cloudy and sultry in the day. Heavy rain at beginning of week. Paddy sowings going on. <i>Bhadoi</i> crops being weeded. Prospects good.
	Kishengunge „ ...	8.23	
	Arrareah „ ...	5.48	
	36 Maldah „ 14, '90	4.69	Weather—cool, cloudy and rainy in the first part of the week, but latterly hot and cloudy, with occasional light showers. <i>Bhadoi</i> and winter rice plants are thriving. In some places sowings of <i>bhadoi</i> and preparation of lands for the winter rice still continue. Jute thriving well. Rivers rising fast. Common rice selling at from 13 to 18 seers per rupee.
	Chanchal „ ...	4.22	
	Shibgunge „ ...	2.96	
	Gajole „ ...	5.80	
	37 Sonthal Pergas „ 14, '90	0.85	Weather—generally cloudy and cool, but reported very hot from Godda. Rain much wanted in Deoghur, but there has been some rain in east and south-east of the subdivision. More rain is also required at Godda. Elsewhere ploughing and sowing of paddy and Indian-corn going on, except in Jamtara, where ploughing only reported.
	Deoghur „ ...	0.16	
	Godda „ ...	1.90	
	Bajmehal „ ...	4.96	
	Jamtara „ ...	Nil	
	Pakour „ ...	2.64	

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack	...	Report not received.
	39 Pooree	...	Report not received.
	40 Balasore June 14, '90	2.87	Weather—cool and cloudy. Rice sowings in progress everywhere. Number of coolies on relief-works 133.
CHOTA NAGPORE.			
South-West Frontier Agency.			
CHOTA NAGPORE DIVN.	41 Hazaribagh June 14, '90	1.66	Weather—cloudy. Paddy and <i>goondli</i> are being sown, and in some places <i>marwa</i> is being transplanted. Sugarcane doing well. Rice selling at from 15 to 20 seers per rupee.
	42 Lohardugga „ 14, '90	1.96	Weather—hot and cloudy. Ploughing and sowing of <i>gora</i> paddy continue. Sugarcane in Palamow doing well. Prices steady.
	43 Palamow (up to 9th June)	0.11	
	43 Singhbhum June 14, '90	1.71	Weather—wet. The rains have apparently set in. Sowing of paddy, <i>rahar</i> , and <i>til</i> going on apace. Rice selling at from 18 to 24 seers per rupee.
CHOTA NAGPORE DIVN.	44 Manbhoom „ 14, 90	0.57	Weather cooler. The rains are still backing, though there has been some in all parts of the district. Paddy sowing has begun, but is backward, not more than 2 annas being completed, and digo sowings complete to extent of 10 annas. The sowings are comparatively restricted in Patkum except in taraf Banda, south of the Korkori. In Burrahoom they are much as usual. Price of rice rising.
	Govindpore	0.11	

Published for general information.

CALCUTTA; REVENUE DEPT.,
The 17th June, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from
8th to 14th June 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 52° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour pressure.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
June	8th	147.5	3.8	29.537	86.4	92.4	12.4	80.0	82.0	1.035	80.3	82	SSE and SSW	122	Nil	Chiefly cloudy, o.
"	9th	143.7	1.5	552	85.0	91.3	10.6	80.7	81.0	1.006	79.4	84	SSE, SSW and variable.	145	0.01	Chiefly cloudy, o, t, d, <.
"	10th	139.4	1.0	596	83.1	89.5	12.9	76.6	80.3	1.001	79.2	88	SSE and variable	83	1.07	Chiefly cloudy, o, t, p.
"	11th	150.4	3.7	632	84.7	91.0	11.4	79.6	81.1	1.014	79.7	85	S by E, SSW and S	152	0.25	Chiefly cloudy, t, d, p.
"	12th	154.3	6.0	640	86.6	92.7	12.8	79.9	81.6	1.009	79.5	81	SSW and S by W	185	Not measurable.	Partially cloudy, d.
"	13th	155.3	6.3	605	82.6	93.8	15.3	78.5	78.3	0.912	76.4	82	SSW and variable	152	0.37	Partially cloudy, o, g, d, t, p.
"	14th	134.5	1.5	575	83.5	88.8	12.4	76.4	78.6	.912	76.4	79	Calm and variable	61	0.01	Chiefly cloudy, o, d.

The mean pressure of the seven days ... 29.591
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29.556

The total number of hours of bright sunshine ... 23.8
The maximum possible number of hours of sunshine ... 94.1

The mean temperature of the seven days ... 84.6
The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 85.2
The extreme variation of temperature ... 17.4
The maximum temperature ... 93.8

The highest velocity of the wind in one hour ... 14

The highest pressure of wind on one square foot ... Approximately 2

The mean relative humidity ... 83

The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 80

The total fall of rain from 8th to 14th June 1890 ... 1.71

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 3.50

The total fall from 1st January to 14th June 1890 ... 11.77

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 14.81

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h., 10h., 16h., and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, d drizzling rain, t thunder, < lightning, p passing temporary showers.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.														
			AIR PRESSURE.			WIND.		TEMPERATURE.									
			Mean barometric height, S. A. M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, S. A. M., temperature.	
ORISSA.	Pooree	Pooree	29'624	29'638	—	SW	322'3	92'7	8, 11, 12, & 13th June	82'1	7th & 8th June	91'6	83'2	87'4	—	85'8	
	Pooree	Gopalpore	29'617	29'639	+0'04	SSW	361'0	96'7	13th "	79'8	7th "	89'2	82'4	85'8	+0'6	85'3	
	Pooree	False Point	29'624	29'646	+0'028	S	308'6	92'0	13th "	73'1	7th "	90'1	80'0	85'1	-1'3	84'7	
	Cuttack	Cuttack	29'670	29'651	+0'038	SW	98'9	8th "	77'3	7th "	95'5	79'7	87'6	-2'0	85'5		
	Balasore	Balasore	29'381	29'640	+0'055	South-westerly	191'7	98'5	8th "	74'8	10th "	91'8	76'0	84'3	-1'9	84'4	
	South-West Midnapore	Saugor Island	29'628	29'654	+0'056	SSW	439'0	92'7	12, 13th "	78'5	10th "	91'2	83'2	87'2	+0'3	86'9	
	South 24-Pergunnahs	Midnapore	29'485	29'635	+0'033	S	205'8	98'8	9th "	75'1	10th "	95'7	79'9	87'8	-1'6	85'2	
	24-Pergunnahs	Calcutta	29'618	29'640	+0'047	S	137'1	92'5	9th, 13th June	76'7	10th "	90'5	79'6	85'2	-0'8	83'1	
	Howrah	Burdwan	29'519	29'618	+0'012	South-westerly	168'6	96'7	9th "	75'4	12th "	94'2	79'1	86'7	-0'9	84'2	
	Hooghly	Bankoora	29'361	29'398	-0'029	S	126'0	96'1	13th "	76'1	10th "	97'0	78'9	88'0	—	83'8	
SOUTH-WEST BENGAL.	Beerbhoom	Raneegunge	29'291	29'622	+0'038	SSW	139'7	100'9	9th "	75'9	11th, 12th June	96'7	79'0	87'9	-1'6	84'3	
	West Burdwan	Berhampore	29'554	29'621	+0'024	S	175'8	97'7	9th "	73'3	10th "	94'2	77'8	86'3	-0'5	82'0	
	Moorshedabad	Krishnagur	29'584	29'631	+0'042	S	214'9	95'8	13th "	75'3	10th "	93'2	78'9	86'1	-0'9	84'6	
	Nuddea	Jessore	29'616	29'649	+0'034	S	60'9	95'3	8th "	74'9	7th "	83'2	79'0	86'1	+2'3	84'9	
	Jessore	Chittagong	29'623	29'712	+0'042	SSE	150'3	96'1	7th "	76'5	10th "	88'3	77'4	82'9	+1'0	84'7	
	Chittagong	Chittagong	29'623	29'712	+0'042	SSE	150'3	96'1	7th "	76'5	10th "	88'3	77'4	82'9	+1'0	84'7	
	Chittagong Hill Tracts	Demagiri	—	—	—	—	—	Observations not received.						—	—		
	Backergunge	Barrisal	29'664	29'676	+0'058	S	126'0	91'3	9th June	75'9	10th "	88'6	79'3	84'0	+1'3	84'1	
	Noakholly	Noakholly	29'668	29'727	+0'070	S & SE	20'6	85'0	8th "	75'8	9th "	83'9	78'7	82'3	+0'4	81'4	
	Furriedpore	Furriedpore	29'632	29'672	+0'040	S	144'7	92'5	9th "	73'9	10th "	90'1	78'1	84'1	+1'3	83'3	
EAST BENGAL.	Dacca	Dacca	29'646	29'669	+0'048	S	133'7	92'1	12th "	75'2	10th "	90'1	77'0	84'0	-0'2	83'6	
	Commillah	Commillah	29'650	29'685	+0'050	S	166'6	88'4	13th "	76'7	10th, 11th June	87'6	77'7	82'7	+0'1	81'6	
	Mymensingh	Mymensingh	29'605	29'668	+0'026	ESE	142'2	90'7	13th "	73'6	9th "	87'3	76'8	82'1	+0'6	81'4	
	Bogra	Bogra	29'569	29'632	+0'038	S	96'0	93'3	13th "	73'6	10th "	89'4	76'5	83'0	-1'0	82'9	
	Patna	Serajunge	29'599	29'646	+0'027	S	84'8	92'1	13th "	73'7	10th & 12th June	89'0	76'5	83'1	0	82'0	
	Rajshahye	Rampore Beaulah.	29'564	29'634	+0'047	Variable	159'8	94'8	8th "	73'2	9, 10th "	91'6	77'5	84'0	+1'4	83'3	
	Maldah	Maldah	29'543	29'643	+0'094	S	80'6	93'0	13th "	73'3	9th "	91'9	77'0	84'0	—	82'3	
	Dinapore	Dinapore	29'567	29'628	0	SSE	72'1	92'6	13th "	74'6	9th "	83'7	76'3	80'1	-4'1	77'2	
	Rungpore	Rungpore	29'535	29'661	+0'017	E	74'1	96'3	13th "	72'2	7th "	84'7	74'9	78'8	-3'6	78'4	
	Jalpigoree	Jalpigoree	29'377	29'665	+0'026	?	164'0?	88'9	13th "	70'6	7th "	86'4	72'6	76'5	-3'2	76'3	
NORTH BENGAL.	Cooch Behar	Cooch Behar	29'377	29'665	+0'026	?	164'0?	88'9	13th "	70'6	7th "	86'4	72'6	76'5	-3'2	76'3	
	Darjeeling Hill Tracts	Darjeeling	29'863	—	-0'16	South-westerly	168'6	63'1	11th, 12th June	55'1	8th, 11th June	63'1	55'4	59'5	-0'7	58'4	
	Purneah	Purneah	29'400	29'626	+0'025	NE	95'1	92'7	13th "	71'9	9th "	85'6	75'0	80'3	-6'9	79'2	
	North Bhagulpore	Mozufferpore	29'417	29'569	—	ESP	315'3	95'3	7th "	73'2	8th "	90'5	76'8	83'4	—	79'8	
	Mozufferpore	Durbhunga	29'454	29'623	+0'039	ESE	117'6	98'4	7th "	?	?	90'5	?	?	?	78'6	
	Durbhunga	Chumpran	29'366	29'621	+0'043	ENE	186'9	94'2	10th "	71'8	8th "	90'5	70'7	83'1	-3'9	79'8	
	Chumpran	Chupra	29'415	29'608	+0'032	South-westerly	177'5	100'3	13th "	74'6	8th, 10th June	94'7	77'0	85'9	-3'8	82'0	
	Saran	Behree	29'202	29'613	+0'037	Variable	140'4	107'4	13th "	74'5	7th "	100'2	79'4	86'8	-0'4	81'5	
	Shahabad	Buxar	29'361	29'603	+0'036	E	221'9	102'4	13th "	74'3	8th "	90'5	78'9	87'4	-4'5	82'0	
	Shahabad	Arrah	29'396	29'591	+0'033	E	135'4	102'4	13th "	75'6	10th "	97'7	77'9	87'8	-3'2	82'4	
SOUTH BENGAL.	Gya	Gya	29'236	29'612	+0'052	E	146'9	106'6	12th "	76'3	7th "	100'7	79'9	86'5	-1'9	86'5	
	Patna	Bankipore	29'414	29'598	+0'009	E	174'7	102'0	13th "	74'7	10th & 11th June	95'5	76'7	86'1	-4'8	80'8	
	South Bhagulpore	Bhagulpore	29'437	29'599	+0'021	Calm	106'9	96'2	13th "	74'0	9th "	89'1	77'1	81'1	-3'5	81'7	
	Bhagulpore	Bhagulpore	29'437	29'599	+0'021	Calm	106'9	96'2	13th "	74'0	9th "	89'1	77'1	81'1	-3'5	81'7	
	South 24-Pergunnahs	Doomka	29'112	29'606	+0'034	SE	173'2	97'7	13th "	74'3	10th "	93'0	78'4	83'7	-1'8	83'9	
	Hazaribagh	Hazaribagh	27'629	29'606	+0'029	S	215'4	96'0	9th "	72'0	11th "	94'3	76'5	85'4	-0'5	82'7	
	Lehardugga	Ranchee	27'513	29'612	+0'033	SW	159'2	96'5	9th "	72'4	7th "	91'6	74'0	82'5	-3'5	80'6	
	Manbhoom	Chyabassa	28'861	29'617	+0'055	WSW	80'9	102'3	10th "	78'7	13th "	99'9	80'8	90'4	0	85'9	
	Singbhoom	Sibangar	29'535	29'621	+0'011	NE	—	99'1	12th & 13th June	74'0	7th "	86'2	74'1	81'2	-2'1	78'7	
	Assam	Dhubri	29'550	29'608	+0'031	North-easterly	151'5	97'2	13th "	70'3	7th "	78'8	72'5	75'7	-6'9	74'4	
ASSAM.	Silchar	Silchar	29'604	29'716	+0'039	Calm	43'5	91'5	9th "	75'6	5th & 19th June	85'6	77'7	81'0	-1'3	79'5	

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed in percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The numbers are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations for the period in question during the past year in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 13th of June 1890.

DISTRICT OBSERVATIONS.															Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
Average humidity at 5 A.M.	Average cloud amount at 5 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.												
			Mean for district.	Normal mean.	Since 1st of month.			Since 15th May 1890.			Average number of rainy days.	Normal number of rainy days.					
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.							
87	5.4	0.45		1.34		2.16				3.87			5.4	Poorce	Poorce	OMISA.	
80	2.9	1.05												Gopalpore			
78	6.3	3.07												Faisa Point			
73	6.0	1.47		1.40		2.35				4.42			2.4	Cuttack	Cuttack	OMISA.	
61	1.7	2.01		1.27		2.39				4.95			2.3	Balasore	Balasore		
83	6.0	0.94	0.74	1.98	1.91	3.29	-1.38	8.88	5.53	+3.35	1.7		2.9	Saugor Island	South-West Midnapore		
74	2.9	1.45	0.90	1.89	1.63	8.39	-1.76	7.83	5.43	+2.40	1.3		2.4	Midnapore	Midnapore	SOUTH-WEST BENGAL.	
85	5.6	1.53	1.00	1.87	3.10	3.77	-0.67	7.74	6.44	+1.30	2.2		2.3	Calcutta	24-Pergunnahs		
81	9.6	3.88	3.48	2.18	4.99	3.74	+1.1	7.82	6.36	+1.46	3.0		2.8	Bardwan	Bardwan		
78	4.3	1.77	2.05	1.60	3.34	3.23	+0.14	7.40	5.32	+2.08	2.5		2.8	Bankoora	Bankoora	SOUTH-WEST BENGAL.	
81	1.4	1.78	1.89	2.09	3.78	3.34	+0.44	5.55	5.34	+0.21	4.3		2.7	Rauregunge	Reerbhoom		
68	7.7	0.95	2.21	1.38	2.70	2.97	-0.27	5.29	6.09	-0.80	2.5		2.4	Behampore	West Bardwan		
81	5.7	0.70	2.76	2.52	3.97	4.57	-0.60	7.76	8.07	-0.31	3.2		2.9	Krishnagar	Moorshedabad	SOUTH-WEST BENGAL.	
89	6.1	1.19	2.28	3.14	3.14	5.18	-2.02	7.80	8.53	-0.73	4.0		3.3	Jessore	Nuddes		
82	6.9	1.86	2.44	6.00	3.96	10.68	-6.72	8.45	15.93	-7.50	4.5		4.8	Chittagong	Jessore		
			1.60	3.99	2.09	7.95	-5.84	8.15	12.20	-4.05	5.5		4.7	Demagiri	Chittagong Hill Tracts	EAST BENGAL.	
87	6.7	1.32	1.40	4.0	1.77	7.75	-5.98	7.83	11.64	-3.81	3.3		4.2	Barrisal	Backergunge		
89	4.1	3.58	3.43	5.59	3.57	10.90	-7.33	11.58	12.67	-1.09	4.0		4.2	Noakholly	Noakholly		
89	4.1	4.05	3.19	3.15	3.33	5.70	-2.17	7.07	10.63	-2.96	4.0		2.7	Furreedpore	Furreedpore	EAST BENGAL.	
87	6.7	5.70	2.60	3.63	3.87	5.90	-2.63	12.54	9.96	+2.58	4.0		4.2	Dacca	Dacca		
83	6.6	2.17	2.53	3.08	4.12	7.14	-3.02	19.31	11.38	-1.07	4.3		4.0	Commillab	Tipperah		
93	7.1	6.63	4.57	4.96	7.56	8.16	-0.60	15.13	13.11	+2.02	4.0		4.0	Mymensingh	Mymensingh	NORTH BENGAL.	
88	7.6	2.30	3.40	2.69	6.10	5.43	+0.67	10.47	10.92	+0.45	5.0		3.3	Bogra	Bogra		
89	7.4	1.40	3.32	2.79	4.78	5.29	-0.51	10.95	9.69	+0.84	3.5		3.4	Serajgunge	Pubna		
86	3.4	4.22	3.77	2.47	5.67	4.10	+1.47	10.27	7.61	+2.66	4.7		3.3	Rampore Beaulah	Rajshahye	NORTH BENGAL.	
80	5.0	4.69	4.46	1.95	5.15	3.35	+1.89	7.57	6.13	+1.44	4.0		2.9	Maldah	Maldah		
84	7.8	4.73	5.10	2.45	8.20	4.55	+3.65	11.67	8.72	+2.95	4.6		2.8	Dinapore	Dinapore		
81	5.7	5.86	7.00	4.59	17.19	8.66	+8.53	21.44	15.45	+5.99	6.3		3.8	Rungpore	Rungpore	NORTH BENGAL.	
86	6.6	15.39	16.73	7.22	29.18	11.67	+17.51	32.72	20.43	+12.29	7.0		4.8	Julpigoree	Julpigoree		
98	9.6	3.88	7.00	5.53	12.92	8.40	+4.52	17.35	15.18	+2.17	7.0		5.2	Darjeeling	Darjeeling Hill Tracts		
92	6.1	7.00	5.45	2.17	7.60	3.26	+3.74	9.18	6.30	+2.88	4.2		2.2	Purneah	Purneah	NORTH BENGAL.	
87	6.3	3.45	1.79	0.70	1.81	1.18	+0.63	3.59	2.53	+1.04	3.0		1.2	Mozufferpore	Mozufferpore		
89	7.6	3.10	2.26	1.07	2.29	1.69	+0.69	3.48	3.06	+0.42	2.7		1.5	Durbhunga	Durbhunga		
84	7.7	2.21	2.45	1.22	2.45	2.09	+0.43	6.17	3.55	+2.62	2.0		1.4	Motihari	Chumpanun	NORTH BENGAL.	
82	4.0	1.00	1.13	0.24	1.13	1.27	-0.14	2.80	2.40	+0.40	3.0		1.1	Chupra	Saron		
70	4.3	0.70															
78	6.3	0.44	0.48	0.55	0.58	0.69	-0.11	1.17	1.26	-0.09	2.2		1.2	Dehree	Shahabad	SOUTH BENGAL.	
79	6.9	0.14												Buxar			
														Arrah			
72	6.1	0.99	1.02	0.62	1.02	0.89	+0.13	1.93	2.26	-0.33	2.5		1.3	Gya	Gya	SOUTH BENGAL.	
83	7.4	0.53	0.68	0.49	0.68	0.78	-0.10	1.98	2.23	-0.25	2.3		1.5	Bankipore	Patna		
87	8.3	1.16	1.44	1.69	1.67	1.60	-0.03	3.74	3.22	+0.52	3.2		1.9	Bhagulpore	South Bhagulpore		
82	4.6	0.85	2.14	1.25	2.89	2.26	+0.63	5.26	4.69	+0.57	3.2		2.3	Doomka	Sonthal Pergunnahs	CHUTIA NAGPUR.	
76	7.9	1.11	1.17	1.15	1.40	1.81	-0.41	2.04	3.37	-1.33	2.3		2.3	Hazaribagh	Hazaribagh		
74	5.0	1.89	1.35	0.99	1.48	1.48	0	2.83	3.22	-0.39	2.7		2.0	Rauchi	Lohatunga		
		0.29	1.28	0.87	2.53	2.53	-1.46	2.96	3.99	-1.03	1.5		2.5		Manbhoom		
66	4.4	1.29	1.71	1.44	1.77	2.24	-0.47	4.86	4.81	-0.05	3.0		3.3	Chyebassa	Singbhoom	ASSAM.	
84	10.0	2.88												Sibsagar			
87	10.0	19.14												Dhubri	Assam		
91	8.7	3.05												Silchar			

ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means 17 years. The means of the district are the numerical average of the rainfall return received in the district, i.e., from total rainfall at the subdivisional

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 13th of June 1890.

Meteorological Division.	District.	Station.	RAINFALL.								TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 1st May 1890.	Average rainfall from 1st May to date.
			Saturday, 7th June.	Sunday, 8th June.	Monday, 9th June.	Tuesday, 10th June.	Wednesday, 11th June.	Thursday, 12th June.	Friday, 13th June.	Number of rainy days.	Rainfall week.					
PORT BLAIR	Pooree	Pooree	0.01							1	0.01	0.01	1.07	2.45	3.14	
		Khurda	0.05	0.02		0.49	0.10					2.24	4.37			
		Bampur	0.03									3.01	3.87			
		Paise Point	2.38			0.04	0.05			3	3.07	3.07	1.70	5.38		
		Gor														
	Cuttack	Satpara					0.05									
		Pipli														
		Jagatsingapore			0.10								1.28	2.61		
		Banki	0.70	0.02		0.50							3.00	7.65		
		Cuttack	0.50	3.50		0.15				2	3.80	4.48	2.60	6.41		
	Balasore	Kendrapara	1.83			0.15	0.22					1.18	1.22	2.63	7.14	
		Jajpore	0.10			1.08										
		Dharmasala	0.10		1.30											
		Salipore	0.23	1.50			0.55									
		Chandbali	0.33			1.21	0.30		1.21	4	3.13	3.13	2.15	6.37		
SOUTH-WEST BENGAL.	Midnapore	Rhudruck	0.36	0.09		1.50						1.89	1.89	2.02	5.06	
		Sorah			1.40		0.70		5.00	3	7.10	7.25	1.95	11.55		
		Balasore				1.00		1.27		2	2.87	4.77	1.89	10.20		
		Jellapore				1.03							2.51	4.23		
		Baripodah			0.21				0.50	2	0.71	2.11	3.19	4.03		
	24-Pargunnahs	Contai		1.13		0.59		0.32		3	1.98	2.27	3.31	12.15	5.40	
		Saugor Island				0.21		0.03			0.24	1.51	3.56	7.09	6.01	
		Tumlook				0.10		0.20		2	0.30	1.10	2.82	19.10	5.21	
		Midnapore				1.48				1	1.48	1.98	3.28	7.23	5.23	
		Ghatal				1.29				1	1.20	1.90	4.98	6.12	5.81	
Howrah	Kutubhaty						0.00		1	0.00	1.07		6.02			
	Garbetta				1.34			0.58	2	1.92	2.41		5.80			
	Diamond Harbour								Nil	Nil						
	Canning Town			0.17	1.00	1.10	0.07	0.02	5	2.36	1.93	3.00	7.38	5.21		
	Alipore Jail			0.02	1.07	0.18			3	1.27	3.99	3.98	8.18	6.41		
Burdwan	Barrackpore					0.07			1	0.07	1.91	4.52	6.59	6.73		
	Dum-Dum	0.06			0.07				2	0.13	1.47	3.55	4.66	6.40		
	Barasat				0.43				1	0.42	1.90	1.96	8.56	6.44		
	Busserhat		0.34	0.06	1.08	0.14	0.23	0.36	6	2.40	5.04	4.31	11.19	6.33		
	Howrah	Howrah					0.03	0.36		2	0.39	2.38	3.79	5.33	6.09	
Hooghly	Mohesra (Ooloberia)				0.25	0.30	0.39	1.39	3	2.04	6.38	3.21	11.94	5.79		
	Serampore					0.94	0.23		2	1.17	2.70	4.10	6.87	6.11		
	Hooghly					0.57			1	0.57	2.39	3.23	7.38	5.89		
	Jehanabad				0.20				1	0.20	1.74	3.28	5.78	6.04		
	Culina			0.85	0.25				2	1.10	4.29	5.90	6.82	6.15		
Bankura	Burdwan				2.40		1.10	0.58	3	3.98	4.94	2.57	7.71	4.38		
	Cutwa			1.45		0.37	0.50	0.03	4	2.41	5.80	4.74	8.87	7.55		
	Raneengunge	0.08			1.19		0.32	0.05	4	1.75	2.41	3.20	4.90	4.51		
	Bankur						0.29	0.38	2	0.87	1.76					
	Bankura				0.68		0.07	1.00	3	1.75	3.20	3.14	7.81	5.33		
Bishnupore	Bishnupore			0.14	1.03			0.71	3	1.88	2.30	3.31	9.83	5.59		
	Maliara				0.80			1.03	3	4.03	5.09	3.27	7.10	5.14		
	Khatra							0.35	1	0.35	1.20	3.00	4.81	5.19		
	Indas				0.65				1	0.64	2.29		5.03			
	Kotalpore							0.41	1	0.41	2.78		7.65			
Anda	Anda				0.41			0.21	3	0.66	2.16		5.48			
	Gangajalghati				1.50			1.11	3	3.56	3.27	9.43	12.04			
	Raipore							0.67	1	0.67	1.61		8.04			
	Sonamukhi				0.24				1	0.24	1.92		5.48			
	Beerbhoom	Ht. Soory				0.61		0.41	0.21	3	1.23	3.23	2.90	4.34	5.10	
Nudda	Hetampore		0.12	0.24		0.21	1.30	0.10	5	1.97	4.86	4.33	5.89	6.00		
	Rampore Haut		0.32	0.34		0.63	0.40	0.70	5	2.30	4.99	3.53	7.06	5.26		
	Boipore				1.50		0.11	1.04	5	2.65	5.90		7.76			
	Murari		0.20	0.50		0.16	1.00	0.60	5	2.86	3.26		5.09			
	Ranaghat				0.20	3.00			2	3.20	2.81	4.18	8.24	7.02		
Khoolna	Kishnaghat			0.06	0.02	0.03			3	0.71	1.93	4.04	7.10	6.74		
	Choudanga			0.17	1.61	0.22			3	2.13	3.38	4.77	6.38	6.25		
	Meherpore			1.15	1.70				0.10	3	3.95	3.92	4.39	6.07		
	Kooshtea			1.18	2.03	0.11	0.14	0.17	5	4.63	4.74	5.45	10.44	9.60		
	Satkira	0.01	0.53		0.51	6.04	1.66	0.45	6	2.60	3.80	4.32	11.80	8.10		
Jessore	Bagirhat			0.10	0.57	0.23		0.23	4	1.28	2.93	5.85	8.47	9.15		
	Khoolna	0.03			0.33		1.18	0.10	4	3.24	2.59	4.79	6.92	7.59		
	Nakipore				0.65	1.24			2	1.89	4.22		14.93			
	Rampal		0.23		1.21			0.43	3	1.90	3.08		9.19			
	Narail		0.85		1.70			0.18	3	2.71	3.25		10.10	7.86		
Moorshedabad	Jessore			0.04	1.09	0.11	0.06	0.02	5	1.23	2.90	5.74	4.03	9.22		
	Jhenidah			0.32	0.92	1.55			3	3.09	3.25	5.36	5.07	9.61		
	Mazmorah		0.13	2.00	1.86	0.20		0.13	5	4.32	4.87	5.26	9.19	9.38		
	Bongong				0.88	0.65			2	1.53	2.06	4.41	6.60	7.42		
	Kandi				1.97			0.11	2	2.08	2.47	3.69	4.10	6.21		
Chittagong	Berhampore			0.09	0.75			0.11	3	0.95	1.01	3.09	1.52	6.82		
	Lalbagh			1.05	1.60				2	2.63	2.63	2.95	4.27	6.33		
	Animgunge			1.36	0.75				2	2.11	2.11	2.60	6.78	5.91		
	Jungipore			0.70	1.98		0.67		3	3.64	3.69	2.12	4.23	5.15		
	Jaigora			2.15	0.05			0.15	2	2.30	4.30	2.68	10.72	6.16		
East Bengal	Jagunna			1.35	0.71		0.35		3	2.42	2.42		7.02			
	Ahrigunj			2.42	0.41		0.66		3	3.89	4.07		8.47			
	Patshabari		0.16	1.20		1.10		1.80	4	4.20	4.20		5.40			
	Chittagong	Cor's Bazar		0.19	0.60	0.40	0.20	0.21	5	3.85	6.55	11.93	12.55	17.40		
	Chittagong III Tracts	Chittagong			0.45	0.24		0.33	3	1.02	2.55	9.44	4.33	14.49		
Backergunge	Kutubdia			0.44	0.20											
	Satkanga			0.50	0.50	0.50	0.20	0.01	5	1.71	2.02		4.54			
	Hangamati	0.16	0.66	0.27	0.40	0.22	0.62	0.61	7	3.28	2.64	8.17	7.80	12.64		
	Roma			0.31	0.07	0.50		0.15	4	0.93	1.54	7.60	9.23	11.74		
	Patuakhally			0.72		0.25	0.35		3	1.32	1.60	0.25	7.05	13.81		
Patuakhally	Perupore			0.50	0.51	1.07	0.67		4	2.75	3.33	6.45	8.94	9.81		
	Burrial				0.25	0.83	0.14		3	1.27	1.07	6.44	7.80	10.62		
	Shola				0.14	0.09	0.20		3	0.47	0.47	8.75	6.96	12.25		

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 13th of June 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of Month.	Average total rainfall from 1st of Month.	Total rainfall since 16th May 1890.	Average rainfall from 16th May to date.	
			Saturday, 7th June.	Sunday, 8th June.	Monday, 9th June.	Tuesday, 10th June.	Wednesday, 11th June.	Thursday, 12th June.	Friday, 13th June.	Number of rainy days.	of Rainfall week.					
EAST BENGAL—contd.	Gourmaddi	Gourmaddi	0.50													
		Raiphai		0.15			0.33	0.27	0.77		4	1.52	1.58		8.32	
		Naakholly				2.24	0.11	0.74	0.20		4	3.28	3.43	10.18	10.74	14.80
		Fenny				0.10	1.50	0.60	1.27		4	3.47	3.71	11.61	12.45	16.44
		Harishpore				1.75	1.20									
		Ramganj			1.00	1.30	2.10		0.34		4	4.74	6.26		15.34	
		Furroedpore	Madaripore			0.21			0.12	0.15	3	0.46	0.54	6.13	3.41	10.38
		Furroedpore		1.20	0.05	2.10			0.37	0.13	5	4.75	5.69	6.57	9.37	10.61
		Gonubdo				0.17	5.65		0.15	0.09	4	4.93				9.09
		Dacca	Munshigunge					0.35		0.17	0.09	3	1.12	2.42	7.05	12.85	11.33
	Dacca				0.61	1.54	0.13		0.04	4	2.31	2.71	3.90	12.15	10.13	
	Narainigunge				0.42	0.06	0.28		0.34	1.41	5	2.61	3.17	6.18	15.14	9.29
	Manickganj				1.00	0.75	2.44		0.25	4	4.45	6.18	4.57	12.02	8.85	
	Joydehpore				1.21	0.06	2.71		0.25	0.11	5	4.94	6.49		15.62	
	Hill Tipperah	Agartola				0.25	0.30		0.32		3	0.87	4.09	6.64	11.37	11.03
		Comilla		0.38	0.15	0.38	0.59		0.18	0.04	6	2.33	2.99	7.89	9.38	12.41
		Chandpore			0.80				0.09	1.30	3	2.09	4.27	6.25	10.30	9.30
		Brahmunbaria			1.04				0.83	1.20	5	3.92	5.13	7.79	10.02	12.06
		Ramchandrapore				0.23			0.63	0.48	3	1.34	3.08		7.95	
		Nasirangar			0.99		0.95	0.85			4	2.90	4.40		12.54	
		Daudkandi						1.21	0.20	0.42	3	1.83	3.05		9.40	
		Kasba		0.06				1.25	2.06							
		Laksham				1.35				1.50	2	2.85	4.35		11.41	
		Mymensingh	Kishoreganj			0.97	0.69	1.95		1.23	0.19	5	5.03	8.04	9.40	13.87	14.29
	Atia (Tangail)					0.27	2.77		0.39		3	3.43	3.96	6.09	13.35	9.67
	Mymensingh				0.75	1.75	1.83		1.59		4	5.93	9.56	8.64	16.06	14.67
	Jamulpore				1.35	0.20	0.05		1.39		4	2.99	6.74	6.41	12.35	10.63
	Netrokona				2.70	0.34	0.63		1.80		4	5.57	9.52	10.26	15.69	16.44
	Subornakhal				1.40		0.45		0.83		3	2.68	2.68		9.23	
	Durgapore			0.10	0.80	1.20	1.01	0.25			4	4.87	7.28		12.90	
	Sherepore			1.50	1.21	1.12			1.04		4	4.87	7.28		12.90	
	Deuaganj				0.40	0.33			1.10		3	1.85	5.69		14.83	
	Pubna		Pubna				0.95	3.81	0.05	0.71	0.05	5	5.57	7.09	5.37	10.00	9.03
		Sarakunja					0.34		0.73		2	1.07	2.40	5.21	11.27	9.15
Sherepore					0.31	0.31	0.10	1.14	0.23	5	2.38	4.68	4.70	8.47	9.84	
Nowkulla				0.68	0.33	0.32		0.80		4	2.31	4.96	5.46	10.83	9.26	
Bogra				1.39	0.12	0.58	0.06	0.32	0.03	6	2.41	4.99	6.71	9.93	11.57	
Panchbibi				0.15	1.84	1.35		3.38	0.10	5	6.83	9.75	4.77	13.51	9.38	
Rajshahi		Banuloh				3.25	1.25		0.14	0.01	4	4.68	4.97	3.99	8.45	7.10
Natore					0.85	1.12	0.94	1.66		4	3.51	6.34	3.83	13.14	7.42	
Naogaon		0.42	1.15	1.05	0.12	0.20		0.17	6	3.11	2.40	4.46	9.23	8.59		
Lalpur			1.12	0.75		0.37		0.70	4	2.94	3.12		6.12			
Maldah	Manda			0.80		0.30	0.40		0.20							
	Maldah		0.01		4.07	5.07		0.04		4	4.80	5.62	5.10	8.87	5.50	
	Chanchal				5.29	0.65	0.17	0.20		4	4.23	4.06	3.59	6.26	6.74	
	Gajai				4.20	1.10	0.40	0.10	0.39	5	6.10	6.45		8.50		
	Sibganj				1.87	1.07		1.75		3	4.69	6.21		11.35		
	Dinapore	Mohadehpore		0.04	0.98	1.04	0.09	0.11		5	2.26	4.34	5.19	7.56	3.96	
	Charatmon			4.38	1.84	0.54	0.34	0.14		5	7.24	8.22	5.89	10.63	6.09	
	Raiganj			5.35	0.70		1.71			3	5.76	7.06	3.86	10.40	7.62	
	Dinapore			1.81	0.31	0.40	2.35	0.04		5	4.71	12.43	5.59	17.71	10.69	
	Balochhat		0.23	1.26	1.54		2.20	0.31		5	5.54	8.34	4.21	12.27	9.44	
Rangpur	Thakurgaon	1.80	0.46		1.72	0.28				4	4.26	12.76		14.72		
	Bhawaniganj	0.18		0.30	0.50	0.05	0.50	0.03		6	2.40	12.13	7.23	16.09	12.68	
	Gyabanda		0.42	0.93	1.00	0.29	0.02	2.81	0.21	7	5.03	16.17	7.42	18.13	14.37	
	Kurigram		1.79	4.64	4.00	0.03	0.98	0.00	0.51	7	12.34	22.32	9.57	23.91	17.98	
	Madocra		2.93	0.67	2.13	0.15	3.86	0.58	0.04	7	9.86	19.18	8.01	23.09	16.31	
	Nilphamari			0.45	1.16	1.12		2.64	0.46	6	5.86	14.31		21.65		
	Ulupore															
	Jalpigore		5.15	2.00	2.81	1.26	1.77	0.09	1.79	7	14.87	23.12	11.51	26.47	19.14	
	Alipore		5.84	2.81	0.61	1.79	5.58	1.17	0.05	7	18.45	33.01		30.37		
	Pallacotta		4.92	1.38	0.06	1.16	7.55	0.10	1.25	7	17.62	29.33		31.46		
Cooch Behar	Dehiganj		4.80	2.43	3.85	0.12	6.22	6.18		6	11.60	20.53		27.34		
	Bhagatpore		3.04	1.63	0.65	2.65	0.46	0.29	0.35	7	9.07	13.82		20.08		
	(Nagarkatta)															
	Dinhatia		4.84	7.95	0.95	1.25	1.00	1.76	0.40	7	18.15	32.14	11.09	34.95	21.39	
	Cooch Behar		5.78	1.25	2.41	0.10	4.46	1.48	5.42	7	20.90	33.32	15.36	38.04	24.26	
	Micklegunge		4.00	2.32	2.29	1.12	2.42	0.72	1.20	7	16.98	27.90	9.31	30.84	18.48	
	Maschanganj		1.80	1.66	0.68	3.78	2.48	1.84	0.53	7	12.77	29.42	10.08	33.34	18.32	
	Buxa		3.67	1.53	0.60	0.45	0.94	0.59	1.05	7	8.97	13.68	16.45	20.08	30.13	
	Silliguri		6.21	1.00	0.32	1.81	0.84	0.18	0.28	7	11.44	16.80	7.20	24.11	13.29	
	Darjeeling		1.51	0.51	0.37	0.30	0.33	0.34	0.12	7	3.88	6.03	0.47	9.48	10.94	
North Bhagalpore	Kalimpong		1.47	0.63	0.28	0.75	0.29	0.15	0.12	7	3.69	5.16	3.47	9.84	6.53	
	Kurseong		2.73	0.40	0.61	0.81	1.14	0.40	1.00	7	7.08	8.84		10.04		
	Kisengunge		1.70		2.72		3.20	0.54		4	8.16	12.54	4.79	13.48	8.89	
	Arturrah		0.14	0.32	1.00	0.14	3.08			5	5.48	6.30	2.92	9.43	6.44	
	Purneah		0.01	0.02	5.03	0.42	0.02			5	7.09	8.84	3.25	11.78	6.39	
	Gondwara				0.60		0.60			2	1.20	1.20		1.80		
	Balarampore			1.20	2.20	6.20										
	Matiari		0.44		1.09											
	Kaliaganj		4.00	1.13	0.30	0.20				4	6.33	12.90		14.92		
	Madadpore		0.10	0.00	4.05		0.03			4	4.83	4.83	2.67	7.93	5.04	
Durbhunga	Scoopool		0.15	0.89	0.90					3	1.94	2.48	2.68	3.60	4.89	
	Protabganj		0.18	1.85						2	2.03	2.41		3.00		
	Tajpore			0.30						1	0.30	1.07	0.08	2.20	2.20	
	Durbhunga		0.02	1.45	0.40		1.93			4	3.10	3.10	1.07	4.43	3.21	
	Madhubani		1.11	1.12	2.11		0.16			3	3.39	3.48	1.91	5.14	3.76	
	Rahera			0.36	0.54			0.13		3	1.03	1.03		3.24		
	Rohera															
	Mosufferpore	Sitamarhi			1.07	0.78	0.62			3	2.47	2.63	1.59	4.32	3.09	
	Mosufferpore			2.64	0.08				0.06	3	2.13	2.18	1.18	3.08	2.02	
	Rajpore			0.02	0.31				0.20	3	0.72	0.72	0.78	3.38	2.01	
Parsa			0.27	0.05					2	1.02	1.02		1.67			
North Bihar	Nahua															
	Sikhar			1.45		0.30				2				0.83		
	Pupri			1.40	1.06	1.40				3	3.80	4.16		3.45		

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 13th of June 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1900.	Average rainfall from 15th May to date.	
			Saturday, 7th June.	Sunday, 8th June.	Monday, 9th June.	Tuesday, 10th June.	Wednesday, 11th June.	Thursday, 12th June.	Friday, 13th June.	Number of rainy days.	of Rainfall week.					
NORTH BENGAL—concluded.	Chumpran...	Motibari ...	.....	1'64	0'03	.....	.....	.....	.....	2	2'20	2'26	1'78	4'75	5'23
		Bottiah ...	.....	2'36	0'07	.....	.....	.....	.....	2	2'43	2'43	2'31	3'56	3'45
		Bapahs ...	0'12	1'36	0'15	.....	.....	.....	.....	3	1'83	2'83	?	3'45	?
		Burhuria ...	.....	1'41	.....	.....	.....	.....	.....	1	1'41	1'41	?	2'83	?
Saru...	Gopalgunge...	Gopalgunge...	.....	0'75	.....	.....	.....	.....	.....	1	0'75	0'75	1'03	3'25	2'87
		Sewan ...	0'48	0'08	.....	.....	.....	.....	0'58	2	1'14	1'14	1'47	2'06	1'93
		Chuprah ...	0'10	0'12	0'09	.....	.....	0'71	0'47	2	1'49	1'49	0'72	3'48	1'70
		Bohar ...	.....	0'12	.....	.....	.....	.....	0'30	2	0'42	0'42	0'74	1'68	1'51
SOUTH BENGAL	Shahabad	Dehree ...	0'30	.....	.....	.....	.....	.....	0'40	2	0'70	0'70	0'91	0'70	1'58
		Bhaboonh ...	0'23	.....	.....	.....	.....	.....	0'10	2	0'35	0'35	0'68	0'35	1'27
		Susseram ...	0'17	.....	.....	.....	.....	.....	0'41	2	0'58	1'06	0'66	1'35	1'36
		Arrah ...	0'04	.....	0'15	.....	.....	.....	0'14	3	0'33	0'33	0'87	1'77	2'04
Gya	Mohaniah	Mohaniah ...	.....	.....	.....	.....	.....	.....	0'70	1	0'70	0'70	?	0'70	?
		Aurungabad...	0'33	.....	.....	.....	.....	.....	0'12	2	0'44	0'44	0'94	0'78	2'28
		Gya ...	.....	.....	.....	.....	0'33	.....	0'05	2	0'39	0'40	1'02	1'00	2'43
		Nowadah ...	.....	.....	.....	0'77	.....	1'47	.....	2	2'24	2'24	0'84	3'27	2'31
Jehanabad	Arwal	Jehanabad ...	0'10	0'06	.....	0'10	.....	.....	0'15	4	0'41	0'41	0'72	2'06	2'01
		Arwal ...	.....	.....	0'04	.....	.....	0'85	.....	3	0'85	0'85	?	1'12	?
		Daudnagar ...	.....	.....	.....	.....	.....	0'50	1	0'50	0'50	?	0'50	?	
		Sherrghati ...	.....	.....	.....	.....	.....	0'03	.....	2	0'49	0'49	?	0'49	?
Rajauli	Pakri Barawan	Rajauli ...	.....	.....	.....	.....	.....	.....	0'63	2	0'63	0'63	?	1'03	?
		Pakri Barawan	.....	.....	.....	.....	.....	.....	.....	1	0'63	0'63	?	1'03	?
		Patna ...	.....	.....	0'23	.....	.....	.....	0'25	2	0'53	0'53	0'80	2'00	2'41
		Dinapore ...	.....	.....	.....	.....	.....	.....	0'35	2	0'45	0'45	0'69	1'52	1'50
Behar	Barrh	Behar ...	.....	.....	0'10	.....	.....	.....	0'35	2	0'45	0'45	0'69	1'52	2'15
		Barrh ...	.....	.....	0'65	.....	.....	.....	0'39	2	0'95	0'95	0'98	1'85	2'42
		Bickram ...	0'40	.....	0'35	.....	.....	.....	0'05	3	0'80	0'80	?	1'85	?
		Hilka ...	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	2'25	?
Monghyr	Begoosera	Begoosera ...	0'04	0'15	1'05	0'05	.....	.....	0'04	5	1'33	1'48	1'58	2'01	3'05
		Monahyr ...	.....	0'20	0'20	1'17	.....	.....	.....	3	1'57	1'57	1'81	4'17	3'50
		Jamul ...	.....	.....	.....	0'36	0'24	.....	1'79	3	2'39	2'39	1'13	3'50	2'53
		Gopri ...	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	1'94	?
Sheikpura	South Bhagalpore.	Sheikpura ...	.....	.....	.....	.....	.....	.....	0'80	1	0'80	0'80	?	1'10	?
		Bhagalpore ...	.....	0'05	0'25	0'81	0'07	.....	.....	4	1'18	1'32	1'68	3'65	3'32
		Barka ...	.....	.....	.....	0'52	.....	.....	0'19	2	0'71	1'05	1'78	4'33	3'65
		Kalyang ...	.....	.....	1'00	0'33	.....	.....	.....	2	1'32	1'32	?	3'33	?
Bangson	Sonthal Pergunnahs.	Bangson ...	.....	0'73	2'42	0'43	.....	.....	.....	3	3'58	3'58	?	4'08	?
		Rajmehal ...	.....	3'05	.....	1'91	.....	.....	0'57	3	5'53	5'07	2'45	8'07	5'28
		Godda ...	.....	.....	0'08	1'80	.....	0'12	0'22	4	2'12	3'07	1'07	6'22	4'08
		Pakour ...	0'20	.....	1'15	0'06	.....	0'35	0'85	5	3'40	4'06	2'78	8'19	6'02
Nya Doemka	Deoghur	Nya Doemka ...	.....	.....	.....	0'56	.....	0'01	0'25	3	0'85	1'03	2'01	3'58	4'77
		Deoghur ...	.....	.....	.....	0'08	.....	0'08	0'21	3	0'37	0'49	1'00	2'40	3'52
		Jamtara ...	.....	.....	.....	.....	.....	0'28	1	0'28	0'92	2'57	2'81	4'55	?
		Mohagama ...	.....	.....	0'52	.....	.....	.....	.....	1	0'52	0'52	?	1'29	?
Nasiriat	Hazariabagh ...	Nasiriat ...	.....	.....	0'65	.....	.....	0'22	.....	2	0'87	1'18	?	1'77	?
		Pachamba ...	.....	.....	0'11	.....	0'81	0'63	0'11	4	1'06	1'84	1'90	3'22	3'47
		(Giridi) ...	.....	.....	.....	.....	0'95	.....	0'12	3	1'11	1'29	2'10	2'14	3'03
		Hazariabagh	0'04	.....	.....	.....	.....	.....	.....	3	1'11	1'29	2'10	2'14	3'03
Semaugurah	Mahudi Hill's	Semaugurah ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Mahudi Hill's	.....	2'20	0'30	.....	.....	.....	.....	2	3'00	3'30	1'21	3'20	2'55
		Barhi ...	.....	.....	.....	.....	.....	.....	0'27	1	0'27	0'27	?	0'81	?
		Chatra ...	0'13	.....	.....	.....	.....	.....	0'39	2	0'43	0'65	?	1'45	?
Karagdeha	Ramphar	Karagdeha ...	.....	.....	.....	0'03	.....	.....	.....	1	0'03	0'15	?	2'17	?
		Ramphar ...	.....	.....	.....	.....	2'30	.....	.....	1	2'30	2'30	?	4'05	?
		Lohardugga...	Lohardugga ...	0'45	0'64	2	1'09	1'25	1'10	1'47	3'24
		Ranchi ...	.....	.....	0'45	0'38	.....	.....	0'68	3	1'49	1'67	2'50	4'04	4'30
Palamow	Silla	Palamow ...	0'07	.....	.....	.....	0'30	.....	0'50	3	1'47	1'51	0'96	2'99	2'01
		Silla ...	.....	.....	.....	1'10	.....	.....	.....	1	1'10	.....	?	?	?
		Balmat ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	?	?	?
		Assinabad ...	0'45	.....	.....	.....	.....	.....	.....	1	0'45	0'60	?	0'60	?
Garewah	Singbhoom	Garewah ...	.....	.....	1'34	.....	.....	.....	.....	.....	.....	.....	?	?	?
		Chyehasa ...	.....	.....	0'11	0'03	.....	.....	1'57	3	1'71	1'77	2'24	4'80	4'81
		Chakradhar ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	?	?	?
		Ghatella ...	.....	.....	.....	.....	.....	1'12	2'50	2	3'62	4'35	?	7'43	?
Baharagura...	Manbhoom	Baharagura...	.....	.....	0'45	.....	.....	0'21	2'15	3	3'81	4'21	?	7'18	?
		Parulia ...	.....	.....	0'29	0'10	.....	.....	0'18	3	0'57	1'42	2'06	4'04	4'75
		Gobindpore ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	?	?	?
		Kaghunath ...	.....	.....	0'24	.....	.....	.....	.....	1	0'24	0'44	?	2'59	?
Barrabhoom	Jhalda	Barrabhoom ...	.....	.....	0'11	.....	.....	.....	1'59	2	1'61	1'76	?	5'99	?
		Jhalda ...	.....	.....	0'48	.....	.....	0'21	0'39	3	1'08	1'29	?	2'05	?
		Chas ...	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	1'49	?	2'77	?

Explanation.—..... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 17th June 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVA-
TIONS TAKEN IN ASSAM, FOR THE WEEK ENDING FRIDAY, THE
13TH OF JUNE 1890.**

WEATHER conditions have been very similar throughout the week, the chief features being—the steadily rising pressure, changes varying very slightly in different parts of the province; high humidity and cloudy skies; and the heavy rainfall in the northern districts and Orissa, while over a strip of country running east and west, including East and South-West Bengal and Chutia Nagpur, the average falls are from ten to thirty per cent. below the normal. At the beginning of the week pressure was from a twentieth to a tenth of an inch below the normal, but the rise then going on (rather rapid in Behar and North Bengal and diminishing towards the south) quickly reduced the defect, and by the 8th the distribution was practically normal. Meanwhile temperature was falling with great rapidity along the west of the province and moderately elsewhere, and heavy rain was falling in North Bengal and Orissa. On the 8th rain was almost absent in South-West Bengal and Chutia Nagpur, and temperature rose rapidly in these districts, but as general very heavy rain was falling in North Bengal and Behar, temperature there fell rapidly, a large defect, of nearly 10° in some cases, resulting. On the 9th pressure was steady, followed by a rapid rise in the central districts on the 10th, the commencement of a high-pressure area which remained over the northern half of the Bay and the southern districts of Bengal till the end of the week. During these two days rainfall was more general in all districts than at any other time, and consequently temperature was falling and everywhere below the normal. On the 11th pressure changed very slightly except in Chutia Nagpur and the east of the Bay, where the rise exceeded a twentieth of an inch, after which excess was about a tenth of an inch from Arakan in a north-westerly direction to Chutia Nagpur. Temperature rose in all districts except Orissa, and rainfall from this date till the end of the week was general in North Bengal and scattered in the other districts. On the 12th excess was very nearly $\frac{1}{15}$ inch at the coast stations, and above a tenth of an inch in all districts except Behar, North Bengal, and part of Assam, but on the 13th pressure was falling moderately, and the high-pressure area moved to the west.

Pressure—Has generally been above the average, and means are in all cases in excess by somewhat variable amounts, ranging up to six-hundredths of an inch. The mean excess for the week is above a twentieth of an inch in Orissa and part of South-West Bengal, the Sunderbuns and Singbhoom, these areas giving roughly the part of the province over which pressure was, relatively to the normal, higher than in the other districts.

Temperature—Has been below the normal except in East Bengal, but changes have been very large and irregular from the scattered rainfall in all districts except North Bengal. The largest change was the fall of 16° in South Behar on the 7th, when temperature from being 8° above the normal fell to 8° below. This was followed by a rise of 7° on the 8th, small changes on the 9th, a general fall of about 3° on the 10th, and a rapid rise in the northern districts on the 11th. The means are largely below the normal in the northern districts, defect being 4.6° in North Behar, 3.4° in Assam, 3° in South Behar, and 2° in North Bengal. In Chutia Nagpur defect is 2° , Orissa 1.2° , South-West Bengal 0.5° , and in East Bengal there is excess of nearly 1° .

Rainfall—Has again been very heavy in North Bengal, but this week the relatively heaviest falls are reported from North Behar. Fairly heavy rain has also fallen in South Behar and Orissa, while in the other districts there is considerable defect. The average actual falls for the large divisions expressed as percentages of the normal falls are as follows—North Behar 224, North Bengal 191, Orissa 150, South Behar 145, South-West Bengal 90, East Bengal and Chutia Nagpur 70. These heavy falls in the northern districts are due to the current of moist air which has been passing northwards to the east of the Bay and giving the steady rain in Burmah, but the Orissa rainfall is probably connected with the disturbed conditions prevailing in Southern and Central India during the greater part of last week.

The heaviest falls in North Bengal expressed in inches are—Cooch Behar 21, Alipore Dooar 18.5, Dinbatta 18, Fallacatta and Mickligunge 17, and Julpigoree 15. The heaviest falls in North Behar are—Kissengunge 8.2, Parneah 7, Kaliagunge 6.3, Arrareah 5.5, Maddapore 4.8, and several other stations between 3 and 4. In South Behar Rajmehal reports 5.5 inches and Pakour 3.4 inches, and in Chutia Nagpur nearly all stations between 1 and 2 inches, but Ghatsilla and Baharagura over 4 inches.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 13th of June 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.	Since 15th May 1890.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	98.9	73.1	91.6	80.4	86.9	-1.2	2.00	1.33	+0.67	2.6	2.5	+0.1	2.45	2.31	6.04	4.48
South-West Bengal ...	100.0	73.3	94.1	79.5	86.8	-0.5	1.90	3.12	-0.22	2.8	2.3	0	3.18	3.55	7.29	6.01
East Bengal	92.5	73.6	83.3	78.0	83.2	+0.7	3.02	4.33	-1.31	4.2	4.2	0	4.28	7.09	10.85	12.12
North Bengal	94.8	76.6	82.9	75.9	81.4	-2.1	7.22	3.77	+3.45	5.4	3.6	+1.8	12.66	6.59	16.70	12.03
North Behar	100.3	71.8	90.3	76.0	83.2	-4.6	3.40	1.34	+1.66	3.3	1.6	+1.7	3.45	2.05	5.31	3.96
South Benar	107.4	74.0	96.1	78.2	87.2	-3.1	1.22	0.84	+0.38	2.7	1.7	+1.0	1.45	1.32	2.90	2.91
Chutia Nagpur	90.0*	72.4*	83.6*	73.2*	84.1*	-2.0*	0.83	1.16	-0.34	2.5	2.3	+0.2	1.07	1.85	2.30	3.27
Assam	91.5	70.3	83.5	73.4	79.5	-3.4										

* Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL;

The 17th June 1890.

C. LITTLE,

Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 8th to 14th June 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.					HYGROMETRY.				Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
June 1890 ...	8th ...	29.617	87.2	94.0	13.7	80.3	88.6	83.7	1.053	80.8	80	0
" " ...	9th ...	29.578	87.2	93.0	11.7	81.3	91.1	83.5	1.045	80.6	72	0
" " ...	10th ...	29.549	84.2	91.2	14.0	77.2	88.1	83.0	1.062	81.1	80	0.05
" " ...	11th ...	29.679	86.3	92.5	12.5	80.0	91.0	83.3	1.037	80.3	71	0.14
" " ...	12th ...	29.622	87.2	94.0	13.7	80.3	90.6	83.0	1.029	80.1	71	0.12
" " ...	13th ...	29.642	88.9	95.0	14.2	81.8	91.1	82.5	0.996	79.1	69	0
" " ...	14th ...	29.629	88.3	94.3	13.1	77.2	86.6	80.5	0.960	78.0	76	1.18

The mean 10 A.M. pressure of the seven days Inches. 29.641

The mean temperature of the seven days 87.1

The extreme variation of temperature 18.8

The maximum temperature 96.0

The mean 10 A.M. relative humidity of the seven days % 74

The total fall of rain from 8th to 14th June 1890 Inches. 1.49

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;

The 16th June 1890.

MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 31st May 1890.

BIRTHS.

The births registered during the week ending with Saturday, the 31st May 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 14.9 per 1,000 of the aggregate population of those towns, which is 1,061,574. This rate is 2.5 lower than the average rate of the corresponding weeks of the past five years, and is also lower than the rate of the corresponding week of any of the past five years, except 1887 and 1889, *vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years 1885-89.	1890.
Ratio of births per 1,000 of the population per annum	24.0	17.8	14.0	16.6	14.8	17.4	14.9

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	10th May 1890.	17th May 1890.	24th May 1890.	31st May 1890.		10th May 1890.	17th May 1890.	24th May 1890.	31st May 1890.
Bardwan	18.3	18.3	16.8	9.1	Narainganj	24.8	20.7	20.7	16.6
Midnapore	6.1	23.2	15.5	15.0	Chittagong	16.4	21.1	7.0	16.4
Hughli and Chinsurah	24.6	24.6	21.3	27.7	Comillah	50.1	19.3	11.6	23.1
Sevampore	19.6	17.7	21.6	21.6	Patna	7.5	7.1	9.4	3.6
Uttarpara	18.9	28.3	9.4	18.9	Gya	14.3	21.2	24.6	19.1
Howrah	15.5	15.5	13.2	14.3	Arrah	10.8	19.1	9.6	27.5
Bali	7.0	10.5	14.0	14.0	Mozufferpore	15.8	14.6	9.7	15.8
Kishnagar	17.0	11.4	3.8	7.6	Durbhanga	31.5	23.6	24.4	18.1
Ransghat	22.9	24.0	6.0	14.0	Chupra	5.0	15.1	10.1	11.1
Santipore	17.5	12.3	17.5	14.0	Bhagulpore	14.5	22.7	13.6	23.5
Jessore	18.4	...	18.4	6.1	Monghyr	9.9	23.5	17.2	19.9
Rampore Beaulah	31.3	28.9	23.6	21.0	Purneah	24.2	17.3	20.8	3.6
Darjiling	44.3	14.8	14.8	7.4	Poori	18.9	10.8	8.4	14.7
Dacca	13.6	7.8	11.0	11.0					

It will be seen that last week the highest birth-rate was returned from Hughli and Chinsurah (37.7) and the lowest from Purneah (3.5).

DEATHS.

The deaths registered during the week under review correspond to an annual rate of 22.4 per 1,000 of the population. The rate of the week is .1 higher than the average rate of the corresponding week of the past five years, and is also higher than the rate of the corresponding week of any of the past five years except 1885 and 1887, *vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years 1885-89.	1890.
Ratio of deaths per 1,000 of the population per annum	21.3	21.5	22.9	17.4	18.3	22.3	22.4

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population:—

Towns.	Weeks ending—				Towns.	Weeks ending—			
	10th May 1890.	17th May 1890.	24th May 1890.	31st May 1890.		10th May 1890.	17th May 1890.	24th May 1890.	31st May 1890.
Bardwan	24.4	27.5	22.9	25.9	Narainganj	12.4	12.4	41.4	8.2
Midnapore	52.5	23.2	17.0	22.4	Chittagong	7.0	21.1	7.0	11.7
Hughli and Chinsurah	47.0	47.0	27.9	27.0	Comillah	23.1	15.4	11.6	30.8
Sevampore	43.2	21.6	27.5	22.4	Patna	32.3	17.3	21.1	16.6
Uttarpara	9.4	28.3	28.3	9.4	Gya	31.4	23.3	27.3	32.1
Howrah	15.5	12.0	16.6	13.2	Arrah	9.6	26.3	13.2	22.3
Bali	10.5	28.1	7.0	21.1	Mozufferpore	24.3	17.0	23.1	28.0
Kishnagar	8.5	9.5	13.2	11.4	Durbhanga	54.3	35.4	37.7	33.0
Ransghat	18.0	18.0	18.0	12.0	Chupra	11.1	10.1	4.0	15.1
Santipore	3.5	12.3	26.3	5.2	Bhagulpore	38.9	13.6	13.6	26.2
Jessore	24.3	12.2	...	6.1	Monghyr	19.0	18.9	23.5	19.9
Rampore Beaulah	28.9	36.8	23.6	26.3	Purneah	27.7	20.8	17.3	10.4
Darjiling	88.0	51.0	44.5	14.8	Poori	44.1	39.9	33.6	62.9
Dacca	24.0	30.3	26.6	10.2					

It will be seen that last week the highest mortality occurred in the town of Poori (62.9) and the lowest in Santipore (5.2).

Measured by last week's mortality, the highest annual death-rates from the following registered death-causes were as follow:—

<i>Cholera.</i>		<i>Small-pox.</i>		<i>Fever.</i>	<i>Other causes.</i>		
	Ratio per mille.		Ratio per mille.	Ratio per mille.	Ratio per mille.		
Mozufferpore	... 15.8	Burdwan	... 4.6		Serampore	... 19.6	
Durbhanga	... 14.9	Midnapore	... 4.6	Poori	... 33.5	Hughli and Chin-	
Arrah	... 9.8	Howrah	... 2.3	Comillah	... 27.0	surah	... 16.4
Midnapore	... 7.7	Patna	... 1.6	Rampore Beasuleah	23.6	Poori	... 14.7
Howrah	... 4.0					Bhagulpore	... 12.6
Patna	... 3.9					Gya	... 12.3

The total mortality from the several registered death-causes in the twenty-seven towns amounted to 3.7 from cholera, against 4. per 1,000 in the preceding week; .9 from small-pox, against .8; 10.4 from fever, against 9.4; 1.5 from bowel-complaints, against 1.9; .4 from injury, against .3; and 5.4 from other causes, against 4.9 in the preceding week.

The mortality of last week according to *Sex*, *Class* and *Age* was as follow:—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	... 21.7	Christians	... 11.1	Under 1 year	... 170.0
Females	... 23.1	Hindus	... 23.1	1 and under 5 years	... 30.8
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	94	Mahomedans	... 20.8	5 " 10 "	... 13.2
				10 " 15 "	... 9.2
				15 " 20 "	... 11.6
				20 " 30 "	... 16.3
				30 " 40 "	... 15.1
				40 " 50 "	... 16.2
				50 " 60 "	... 22.1
				60 years and upwards	... 63.0

W. H. GREGG, *Dip. Publ. Health, Camb.*,

Sanitary Commissioner for Bengal.

The 16th June 1890.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending with Saturday, the 31st May 1890.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—										SEX.			
		Males.	Females.	Total.	NUMBER OF—			DISEASE.										Males.	Females.	Ratio per 1,000 of population.	
					Males.	Females.	Total.	RATIO PER 1,000 OF POPULATION PER ANNUM.													
								Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.
Burdwan	Burdwan	18,863	16,017	34,880	6	1	7	...	46	107	15	...	91	25.9	...	46	107	15	...	91	25.9
Midnapore	Midnapore	16,257	16,633	32,890	7	5	12	...	46	62	15	...	93	29.4	...	46	62	15	...	93	29.4
Hughli	Hughli and Chinsura.	13,528	15,829	29,357	8	15	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Serampore	Serampore	13,559	12,897	26,456	5	6	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Howrah	Howrah	8,665	8,654	17,319	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nudda	Nudda	7,838	6,079	13,917	3	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jessore	Jessore	4,025	4,655	8,680	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahi	Rajshahi	13,708	15,879	29,587	5	3	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjiling	Darjiling	4,579	2,489	7,068	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dacca	Dacca	42,782	37,379	80,161	9	8	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong	Chittagong	13,346	8,790	22,136	2	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tipperah	Tipperah	8,153	5,303	13,456	2	4	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Patna	Patna City	78,763	81,475	160,238	6	5	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gya	Gya	38,299	37,851	76,150	9	10	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulvibazar	Moulvibazar	50,860	32,805	83,665	12	11	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Durban	Durban	33,084	19,668	52,752	5	8	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saran	Saran	33,774	32,322	66,096	14	9	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhagalpur	Bhagalpur	25,116	26,554	51,670	6	5	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monghyr	Monghyr	29,640	27,813	57,453	17	9	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Purnea	Purnea	28,154	29,392	57,546	11	11	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pooi	Pooi	8,463	6,553	15,016	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	Total	550,686	510,438	1,061,124	142	153	295	70	19	213	50	8	110	467	57	9	104	19	4	54	29.4

[illegible]

W. H. GREGG, Dip. Publ. Health, Camb.,

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,
The 16th June 1890.

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 14th June 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 14TH JUNE 1890.			WEEK ENDING SATURDAY, THE 15TH JUNE 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	212	58,000	888	220	73,694	1,146
Jute ...	8	4,400	75	16	7,550	151
Firewood ...	102	58,375	873	194	85,665	1,392
Other articles ...	854	1,76,800	2,446	700	2,16,900	2,916
Total ...	1,176	2,97,635	4,282	1,130	3,83,869	6,605

Bengal Central Railway.

*Abstract of principal commodities carried over the Bengal Central Railway during the month of
March 1890, as compared with the same month of the previous year.*

STAPLES.	1890.		1889.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1890.	1889.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal ...	4,536	.....	2,841	5	4,536	2,846	1,690	.....
Cotton, raw ...	.....	.....	.....	1	.....	1	.....	1
Cotton twist and yarn—								
1.—European ...	.....	.....	.....	.....	.....	.....	.....	.....
2.—Indian ...	.....	.....	.....	.....	.....	.....	.....	.....
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ...	214	.....	222	.....	214	222	.....	8
b.—In boxes ...	.....	.....	.....	.....	.....	.....	.....	.....
2.—Indian—								
a.—In bales and bundles ...	.....	.....	.....	.....	.....	.....	.....	.....
b.—In boxes ...	.....	.....	.....	.....	.....	.....	.....	.....
Grains—								
1.—Rice ...	117	34	4	39	211	43	168	.....
2.—Others ...	45	151	11	812	196	823	.....	627
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ...	.....	.....	.....	.....	.....	.....	.....	.....
b.—Undressed ...	.....	.....	.....	.....	.....	.....	.....	.....
2.—Skins of sheep, &c.—								
a.—Dressed ...	.....	11	.....	18	11	18	.....	7
b.—Undressed ...	.....	.....	.....	.....	.....	.....	.....	.....
Jute—								
1.—Raw—								
a.—Screwed ...	.....	5	.....	.....	5	.....	5	.....
b.—Unscrewed ...	.....	118	.....	5	118	5	113	.....
2.—Gunny-bags and cloth ...	8	.....	22	.....	8	22	.....	14
Metals—								
1.—Copper, unwrought ...	.....	.....	.....	.....	.....	.....	.....	.....
2.—Brass, unwrought ...	.....	.....	.....	.....	.....	.....	.....	.....
3.—Brass and copper, wrought ...	.....	.....	.....	.....	.....	.....	.....	.....
4.—Iron ...	62	29	50	31	81	90	.....	9
5.—Tin ...	.....	.....	.....	.....	.....	.....	.....	.....
6.—Others ...	.....	.....	.....	.....	.....	.....	.....	.....
Oils—								
1.—Kerosine ...	81	.....	80	.....	81	80	1	.....
2.—Others ...	132	.....	82	.....	132	82	50	.....
Oilseeds—								
1.—Linseed ...	.....	.....	.....	.....	.....	.....	.....	.....
2.—Rape and mustard ...	.....	.....	.....	.....	.....	.....	.....	.....
3.—Til or gingelly ...	.....	.....	.....	.....	.....	.....	.....	.....
4.—Niger ...	122	961	83	1,863	1,083	1,948	.....	865
5.—Castor ...	.....	.....	.....	.....	.....	.....	.....	.....
6.—Poppy ...	.....	.....	.....	.....	.....	.....	.....	.....
7.—Others ...	.....	.....	.....	.....	.....	.....	.....	.....
Provisions—								
1.—Betel nuts ...	.....	684	25	128	684	153	531	.....
2.—Others ...	110	237	143	197	347	340	7	.....
Railway plant and rolling-stock ...	74	38	145	15	119	160	.....	48
Salt ...	242	.....	260	.....	242	260	.....	18
Sugar—								
1.—Drained ...	46	650	8	1,956	696	1,964	.....	1,268
2.—Undrained ...	16	24	10	25	40	35	5	.....
Tobacco ...	.....	.....	.....	.....	.....	.....	.....	.....
All other articles of merchandise—								
1.—Unmanufactured ...	324	197	313	210	521	523	.....	2
2.—Manufactured ...	.....	.....	.....	.....	.....	.....	.....	.....
Total ...	6,170	3,180	4,308	5,307	9,518	9,615	2,870	2,867

Comparative Statement of the principal commodities carried over the Bengal Central Railway during the month of March 1890.

	Tons.
INCREASES.	
Coal	1,690
Stocks for railway and flotilla consumption.	168
Rice	113
The increase is slight and due to ordinary fluctuations of traffic.	
Jute, unscrewed	531
The increase was contributed by Khoolna and Gobardanga principally, but there were small increases from Maslandpur, Bongong, and Nawapara also.	
Betel-nuts	865
From the B. C. Flotilla exclusively.	
DECREASES.	
Oil-seeds	1,268
The largest decrease was from Singha, 13,020 maunds, but Bongong, Jadabpur-Nabharan, and Khoolna also show considerable falling off, said to be due to restricted outturn.	
Sugar ... ..	...
Gobardanga and Jadabpur-Nabharan show decreases, but the decrease from Jhikargacha alone was 38,535 maunds, said to be due to dullness of the Calcutta market.	

F. P. QUINLAN,
Examiner of Accounts.

Calcutta, the 13th June 1890.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 7th June 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	254,356	2,70,983 2 0	22,36,655 30	5,00,558 9 0	22,698 2 0	7,93,639 13 0	64,102½	94,46½	158,565½
Or per mile of railway ...	177 10 2	177 10 2	...	328 2 1	14 7 9	520 4 0	...	...	...
For previous 22 weeks of half-year ...	5,749,575	62,82,149 12 0	5,68,53,025 0	1,34,72,135 11 3	4,40,761 8 9	2,02,04,647 0 0	1,440,122½	1,129,591	3,569,713½
Total for 23 weeks ...	6,003,931	65,53,132 14 0	5,90,79,080 30	1,39,72,694 4 3	4,71,859 10 9	2,09,97,696 13 0	1,504,224½	2,214,53½	3,728,759½
COMPARISON.									
Total for corresponding week of previous year ...	299,177	2,69,934 12 7	29,32,328 0	6,51,696 15 0	18,698 8 9	9,39,640 4 4	62,766	107,725	170,491
Per mile of railway corresponding week of previous year ...	...	176 15 2	...	426 12 11	12 3 2	615 15 3	...	...	...
Total to corresponding date of previous year ...	6,168,610	67,62,153 10 5	6,52,14,561 0	1,48,98,418 12 7	3,99,800 1 10	2,15,00,871 8 10	1,503,374	2,298,915	3,802,289

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 8TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 8TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 7TH JUNE 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1,525½	39,610	616	1,525½	7,93,640	520	1,625½	95,74,458	615	1,525½	88,22,099	579	.....	5,45,389

PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 7th June 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	13,741	5,742 0 0	30,995 10	2,533 5 0	44 0 0	8,319 5 0	1,064	532	1,596
Or per mile of railway ...	240	100 6 2	539 10	44 4 7	0 12 4	145 7 1	.....	.....	.....
For previous 22 weeks of half-year ...	*205,324	*1,54,006 3 0	†19,92,031 20	†79,002 2 0	‡1,014 15 0	2,25,073 4 0	36,002½	16,618	52,620½
Total for 23 weeks ...	219,065	1,59,748 3 0	11,22,026 30	72,535 7 0	1,058 15 0	2,33,392 9 0	37,104	17,150	54,254
COMPARISON.									
Total for corresponding week of previous year ...	11,472½	4,881 7 9	55,068 0	2,770 1 0	34 14 3	7,684 7 0	900	570	1,470
Per mile of railway corresponding week of previous year ...	201	85 5 6	962 30	48 6 10	0 9 9	134 6 1	.....	.....	.....
Total to corresponding date of previous year ...	315,674	1,64,912 15 3	10,51,988 20	59,936 15 0	1,586 4 6	2,26,436 2 9	39,794	17,360	57,154

* Added No. of passengers 945 and deducted Rs. 59 }
 † Ditto Mds. 2,235 " 373 } on account of differences between the approximate and audited returns to week ended 26th April 1890.
 ‡ Ditto " 74 }

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 5TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 7TH JUNE 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	7,684	134	57½	8,319	145	57½	88,841	155	57½	*1,04,762	183	15,921	.....

* Deducted Rs. 388 on account of difference between the approximate and audited figures to week ended 26th April 1890.

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 7th June 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	21,716	5,038 14 0	8,061 30	308 9 0	8 10 0	5,951 1 0	902	66	968
Or per mile of railway ...	255	225 3 4	.....	13 13 11	0 6 2	267 7 5	.....	.....	.....
For previous 22 weeks of half-year ...	*405,686	*1,30,906 8 0	†3,37,371 30	†10,739 8 0	‡202 10 0	1,41,848 10 0	10,553	2,287	21,840
Total for 23 weeks ...	517,402	1,30,940 6 0	3,46,333 20	11,048 1 0	211 4 0	1,47,799 11 0	20,454	2,353	22,807
COMPARISON.									
Total for corresponding week of previous year ...	22,871½	6,056 6 4	8,125 30	322 5 0	8 1 0	6,386 12 4	884	84	968
Per mile of railway corresponding week of previous year ...	.....	271 4 9	.....	14 7 9	0 5 10	286 2 4	.....	.....	.....
Total to corresponding date of previous year ...	526,067	1,58,091 15 7	2,16,351 20	7,844 14 0	179 12 6	1,46,116 10 1	21,150	1,460	22,550

* Added number of passengers 8,235 and Rs. 261 }
 † Ditto mds. 10,512 " 281 } on account of differences between the approximate and audited returns to week ended 26th April 1890.
 ‡ Deducted " 7 }

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 5TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 7TH JUNE 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	6,367	286	22½	6,951	292	22½	64,951	292	22½	*66,536	299	1,585	.....

* Added Rs. 475 on account of difference between the approximate and audited figures to week ended 26th April 1890.

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTION.)

Approximate Return of Traffic for week ended 31st May 1890, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week...	2153,600	78,430 0 0	5,76,200 0	80,200 0 0	27,110 0 0	1,04,740 0 0	22,792	20,000	52,792
Or per mile of railway...	286	105 0 0	771 0	119 0 0	712 0 0	236 0 0	.....	.....	.....
For previous 21 weeks of half-year	3,423,162	15,96,128 0 0	1,20,05,853 0	21,40,195 0 0	3,08,975 0 0	*41,55,388 0 0	470,923	645,210	1,116,133
Total for 22 weeks	5,576,762	16,74,558 0 0	1,25,82,053 0	22,29,395 0 0	4,20,085 0 0	43,30,688 0 0	493,715	675,188	1,168,903
COMPARISON.									
Total for corresponding week of previous year	120,477	50,718 0 0	5,65,672 0	74,454 0 0	21,718 0 0	1,55,800 0 0	21,571	22,910	44,481
Per mile of railway corresponding period of previous year	170	89 0 0	841 0	111 0 0	78 0 0	208 0 0	.....	.....	.....
Total to corresponding date of previous year	3,190,634	15,96,304 0 0	1,11,30,964 0	18,40,822 0 0	4,09,431 0 0	38,46,647 0 0	472,955	532,066	1,005,021

* Audited up to week ending 12th April 1890.

† Excluding steamer earnings.

a Due to Dushohara Ganges bathing festival.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
673	Rs. 1,55,800	232	747	Rs. 1,94,740	261	673	Rs. 14,41,139	238	747	*15,83,327	255	Rs. 1,42,188	.....

* Audited up to week ending 12th April 1890.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 31st May 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week...	230,120	14,840 0 0	35,520 0	2,460 0 0	50 0 0	17,150 0 0	3,627	2,645	6,272
Or per mile of railway...	241	117 0 0	276 0	20 0 0	.....	137 0 0	.....	.....	.....
For previous 21 weeks of half-year	590,143	1,98,384 0 0	10,96,012 0	63,750 0 0	1,450 0 0	*2,65,629 0 0	74,312	42,576	116,888
Total for 22 weeks	820,263	2,13,064 0 0	11,23,542 0	66,240 0 0	1,500 0 0	2,80,770 0 0	77,939	44,621	122,560
COMPARISON.									
Total for corresponding week of previous year	24,500	8,652 0 0	48,179 0	2,086 0 0	62 0 0	11,700 0 0	3,735	1,937	5,672
Per mile of railway corresponding period of previous year	197	69 0 0	385 0	24 0 0	1 0 0	94 0 0	.....	.....	.....
Total to corresponding date of previous year	626,907	2,15,783 0 0	12,45,975 0	72,288 0 0	4,877 0 0	2,93,048 0 0	80,772	42,647	123,419

* Audited up to week ending 12th April 1890.

a Due to Dushohara bathing festival.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
125	Rs. 11,700	94	125	Rs. 17,150	137	125	Rs. 1,15,307	102	125	*1,10,447	98	Rs.	Rs. 4,800

* Audited up to week ending 12th April 1890.

DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 31st May 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	19,770	4,720 0 0	9,030 0	750 0 0	70 0 0	5,540 0 0	2,414	690	3,104
Or per mile of railway ...	172	55 0 0	165 0	8 0 0	1 0 0	64 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	339,981	1,15,455 0 0	5,06,722 0	47,521 0 0	3,424 0 0	*1,64,398 0 0	49,967	16,618	66,585
Total for 22 weeks ...	374,751	1,18,173 0 0	5,15,752 0	48,271 0 0	3,494 0 0	1,69,938 0 0	52,931	17,308	69,689
COMPARISON.									
Total for corresponding period of previous year ...	14,076	3,979 0 0	10,659 0	516 0 0	296 0 0	4,791 0 0	2,497	727	3,224
Per mile of railway corresponding period of previous year ...	164	46 0 0	124 0	6 0 0	4 0 0	55 0 0	.....	.....	.....
Total to corresponding date of previous year ...	338,968	1,62,882 0 0	2,82,345 0	21,701 0 0	3,592 0 0	1,58,175 0 0	54,945	17,399	71,735

* Audited up to week ending 12th April 1890.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	4,791	56	86	5,540	64	86	45,518	59	86	*56,653	73	11,135	.....

* Audited up to week ending 12th April 1890.

NALHATI STATE RAILWAY.

Approximate Return of Traffic for the week ending 31st May 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	4,440	1,770 0 0	6,689 0	433 0 0	17 0 0	2,220 0 0	509	254	763
Or per mile of railway ...	163	65 0 0	245 0	16 0 0	1 0 0	82 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	67,833	24,470 0 0	2,54,031 0	15,877 0 0	2,169 0 0	42,007 0 0	16,525	10,046	26,571
Total for 22 weeks ...	72,273	26,240 0 0	2,60,720 0	16,310 0 0	2,177 0 0	44,227 0 0	11,034	10,500	21,534
COMPARISON.									
Total for corresponding week of previous year ...	2,970	1,075 0 0	12,651 0	810 0 0	343 0 0	2,228 0 0	509	417	926
Per mile of railway corresponding week of previous year ...	109	39 0 0	465 0	30 0 0	13 0 0	82 0 0	.....	.....	.....
Total to corresponding date of previous year ...	71,891	27,115 0 0	2,42,192 0	14,903 0 0	1,962 0 0	43,080 0 0	11,052	9,403	20,515

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 1st JUNE 1889.			RECEIPTS FOR WEEK ENDING 31st MAY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 1st JUNE 1889.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 31st MAY 1890.			Total increase in 1890-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	2,228*	82	27½	2,220	82	27½	15,740	64	27½	15,814	68	.....	226

NALHATI STATE RAILWAY.

Approximate Return of Traffic for the week ending 7th June 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	3,216	1,203 0 0	10,726 0	647 0 0	15 0 0	1,955 0 0	569	254	763
Or per mile of railway ...	118	47 0 0	394 0	24 0 0	1 0 0	72 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	72,227	96,257 0 0	2,00,767 0	15,816 0 0	2,177 0 0	44,250 0 0	11,035	10,463	21,493
Total for 22 weeks ...	75,443	97,460 0 0	2,11,493 0	16,463 0 0	2,192 0 0	46,208 0 0	11,544	10,717	22,261
COMPARISON.									
Total for corresponding week of previous year ...	4,719	1,899 0 0	8,245 0	690 0 0	91 0 0	2,659 0 0	673	417	1,090
Per mile of railway corresponding week of previous year ...	174	70 0 0	303 0	24 0 0	3 0 0	97 0 0	.....	.....	.....
Total to corresponding date of previous year ...	76,640	29,014 0 0	2,50,437 0	15,563 0 0	2,053 0 0	46,630 0 0	11,725	9,890	21,605

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 8TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 8TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 7TH JUNE 1890.			Total increase in 1889-90.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	2,650	97	27½	1,955	72	27½	18,390	67	27½	17,492	64	.....	898

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for the week ending 7th June 1890, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	45,984	15,778 0 0	2,36,149 0	26,845 0 0	3,105 0 0	45,731 0 0	5,129	8,350	13,498
Or per mile of railway ...	168	58 0 0	865 0	98 0 0	4 0 0	169 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	1,008,224	4,68,819 0 0	54,48,732 0	6,27,553 0 0	69,368 0 0	11,05,710 0 0	111,600	264,841	310,641
Total for 22 weeks ...	1,054,208	4,84,597 0 0	56,84,901 0	6,54,401 0 0	72,473 0 0	11,51,471 0 0	116,729	313,900	329,939
COMPARISON.									
Total for corresponding week of previous year ...	49,151	17,388 0 0	2,31,652 0	18,182 0 0	5,309 0 0	40,879 0 0	5,127	5,683	10,790
Per mile of railway corresponding week of previous year ...	189	64 0 0	849 0	67 0 0	4 0 0	155 0 0	.....	.....	.....
Total to corresponding date of previous year ...	991,269	3,72,452 0 0	33,69,794 0	3,41,031 0 0	89,521 0 0	8,66,094 0 0	120,654	129,577	249,631

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR WEEK ENDING 8TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 8TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 7TH JUNE 1890.			Total increase in 1889-91.	Total decrease in 1890-91.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	40,879	150	273	45,731	168	273	3,93,025	144	273	4,52,253	165	58,027	.....



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JUNE 25, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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AMENDMENT OF THE PUBLIC DEMANDS RECOVERY ACT 1880, AND THE REVENUE SALE LAW.

REVENUE DEPARTMENT, LAND REVENUE.

[Dated Darjeeling, the 17th June, 1890.]

RESOLUTION.

Read again—

This Government's letter to the Government of India, No. 3674—1230L.R., dated the 28th September, 1889, with enclosures.
Letter from the Government of India, Revenue and Agricultural Department, No. 14CI/156 R, dated the 29th November, 1889.

Read—

This Government's Resolution, dated the 2nd December, 1889.
Letter from the Government of India, Revenue and Agricultural Department, No. 324CI, dated the 15th March, 1890.
Letter, dated the 3rd May, 1890, from Mr. John Beames, with enclosures.

In September, 1889, the Lieutenant-Governor represented to the Government of India that it was desirable to recast the law on the important subject of the recovery of the land revenue and other public demands, with a view not only to putting it in a more convenient form, but also to the introduction of such substantive improvements as it seemed possible to effect for the convenience of the different classes concerned without impairing the efficiency of the system. In the interest of the zemindars, Sir Steuart Bayley proposed to give them notice through the post, if they so desired, of any failure on the part

of their agents to pay the revenue before the latest appointed day, an arrangement originally suggested by the British Indian Association in 1874; to give one share-holder, advancing revenue on behalf of his partners, a summary means of recovering the amount from them, as recommended by the East Bengal Landholders' Association; to take additional precautions to secure the due publication of the notices prescribed by law; to permit payment after the latest day, subject to a fine; and, when auction sales unfortunately occurred, to ensure the best price for the property, by giving the purchaser the most assured title possible. For the benefit of mortgage-holders and other encumbrancers, the Lieutenant-Governor desired to enable them also, according to the suggestion of the British Indian Association, to secure notice of default of revenue, if they desired to do so, and to appeal against irregular sales affecting them injuriously. Under the existing law unregistered tenures are voidable on the occurrence of revenue sale, at the pleasure of the purchaser, and in the case of the majority of such tenures the time during which registration might have been effected has elapsed. The Lieutenant-Governor considered that if the deed constituting the tenure has been registered within the period prescribed by Act III of 1877, effect may be given to it at any time for the purposes of the Sale Law by the further registration required by Act XI of 1859, and that tenure-holders should be encouraged to protect themselves in this way by a reduction in the fee charged. This will prevent revenue sales from affecting injuriously the position of a numerous class in no way responsible for the defaults by which such sales are occasioned. Much importance was attributed to an amendment suggested in the interest of ryots and others, against whom certificates for the realization of dues have been made, by permitting the Collectors to set aside irregular sales held under their own certificates. At present the only remedy is by appeal to the Commissioner, a more distant and less familiar authority, with whom the poorer debtors do not always find it easy to communicate. The Lieutenant-Governor proposed to have these amendments embodied in two Bills, one for the recovery of land revenue, the other regulating the procedure for recovering other public demands, and to publish the Bills for the criticism of those affected. The Government of India having accepted the proposal, the Bills have been prepared with great care by Mr. Beames, with explanatory notes indicating in detail the different changes which they introduce, and the opinion of the Board of Revenue and of the principal Associations of the Province will be solicited as to their merits. The further action of this Government must depend on the tenor of the replies which may be received.

ORDER.—Ordered that this Resolution, with the Draft Bills and the explanatory notes appended thereto, be published in the *Calcutta Gazette*, and that copies be forwarded to the Government of India, the Board of Revenue, the Superintendent and Remembrancer of Legal Affairs, and to the Associations named below—

The British Indian Association.	|	The Central Mahomedan Association.
The Indian Association.	|	The Behar Landholders' Association.
The East Bengal Landholders' Association,		

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

Secretary to the Government of Bengal.

A
DRAFT BILL

TO

Amend the Public Demands Recovery Act, 1880.

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A
DRAFT BILL

TO

Amend the Public Demands Recovery Act, 1880.

WHEREAS it is expedient to amend the law for the recovery of dues and debts demandable by Public Officers: It is hereby enacted as follows:—

Act VII (B.C.) of 1880, section 1.

1. This Act may be called "The Public Demands Recovery Act, 1890."

It extends to all the territories for the time being administered by the Lieutenant-Governor of Bengal.

It shall come into operation on and after the date on which it shall be published in the *Calcutta Gazette* with the assent of the Governor-General.

Ditto ditto, section 2.

2. The powers given by this Act shall be deemed to be in addition to, and not in derogation of, any powers conferred by any Act now being in force for the recovery of any due, debt, or demand to which the provisions of this Act are applicable.

Ditto ditto, section 3.

3. Bengal Act VII of 1880 is hereby repealed from and after the commencement of this Act: provided that this repeal shall not affect—

(a) the past operation of the Act hereby repealed, nor anything duly done or suffered thereunder:

(b) any liability created under the Act hereby repealed.

Every certificate made under the provisions hereby repealed of Bengal Act VII of 1880 may be enforced under the provisions of this Act.

Ditto ditto, section 4.

4. In this Act, unless the context otherwise requires:

"Section." means a section of this Act.

"Collector of the District" means the officer in charge of the revenue administration of a district.

"Collector" means (a) within the local limits of the ordinary original jurisdiction of the High Court of Judicature at Fort William in Bengal, the Collector of Calcutta; (b) without those limits, the Collector of a district; and includes, subject to the provisions of section 30, any officer specially appointed by the Lieutenant-Governor to perform the functions of a Collector under this Act, and any officer in charge of a sub-division of a district whom the Collector of such district, with the sanction of the Commissioner, authorizes to perform such functions as aforesaid.

Now,
See Act IX (B.C.) of 1880, section 4.

Now.

"Bengal Act" means an Act passed by the
"Bengal Act." Lieutenant-Governor of Bengal
in Council.

5. In the following cases, that is to say—

(1) when, under the provisions of the "Revenue
Sale Act, 189," or any law

When an estate or
tenure has been sold for
its own arrears; and the
sale-proceeds are insuffi-
cient to liquidate the
same; or

for the time being in force,
an estate, share of an estate
or independent tenure, has
been sold for the recovery

of arrears of revenue due thereupon, and, after
deducting the expenses of such sale, the balance
of the sale-proceeds remaining is insufficient to
liquidate the arrears of revenue in discharge of
which such sale-proceeds may under the afore-
said provisions be applied;

(2) when arrears of revenue due from a farmer

when arrears of revenue
due from a farmer are not
paid on latest date of
payment;

on account of an estate held
by him in farm are not paid
on the latest day of pay-
ment fixed under the pro-
visions of section 6 of the "Revenue Sale Act,
189."

the Collector may make under his hand,

The Collector may make
a certificate.

and in form No. 1 in the
Schedule annexed to this
Act, a certificate of the

amount of arrears so remaining unpaid, and may
cause the same to be filed in his office.

6. (a) Subject to the provisions of this Act,

Such certificate shall
have the force and effect
of a Civil Court decree
as regards the remedies
for enforcing it.

every certificate made under
the provisions of section 5
shall, as regards the remedies
for enforcing the same and
so far only, have the force

and effect of a decree of a Civil Court, and the
Secretary of State for India in Council shall be
deemed to be the decree-holder, and the person
therein named as debtor shall be deemed to be
the judgment-debtor.

(b) Such judgment-debtor may at any time

Judgment-debtor may
bring a suit in the Civil
Court to contest his liabi-
lity, if he has deposited
the amount of the certi-
ficate.

within one year after the
service upon him of such
notice as is mentioned in
section 10, bring a suit in
the Civil Court to have the
said Certificate cancelled on

the ground that the arrears stated therein were
not due by him; but no such suit shall be enter-
tained unless such judgment-debtor has paid such
arrears to the Collector within one month after
being served with the said notice, or, in any case
in which he has filed a petition of objection under
section 12, then within fifteen days after such
petition has been heard and determined.

(c) If no such suit is instituted within the said

Certificate when to be-
come absolute.

period of one year, or if any
such suit having been so
instituted is decided against

such judgment-debtor, such certificate shall
become absolute, and shall have to all intents
and purposes the effect of a final decree of a Civil
Court.

7. When any arrears of

When any arrear of a
public demand is unpaid
by the person liable to
pay the same.

the following public demands
are unpaid by the person
liable to pay the same, that
is to say—

(1) any sum of money which by any law for
the time being in force is declared to
be recoverable or realizable as an
arrear of revenue or land revenue, or

Act VII (B.C.) of 1880, section 5.

Ditto ditto, section 6.

Ditto ditto, section 7.

- by the process prescribed for the recovery of arrears of revenue or of the public or Government revenue:
- (2) any sum of money due from the sureties of a farmer in respect of the revenue of the estate farmed by him:
 - (3) any such demand, money, fee, duty, arrear, fine, or costs as is mentioned in the following sections of the following Bengal Acts, that is to say—

Act VIII of 1862, Section 9;
 Act IV of 1875, Section 1;
 Act V of 1875, Section 57;
 Act III of 1876, Section 42, Section 73, and Section 85;
 Act VII of 1876, Section 82;
 Act VIII of 1876, Section 138;
 Act VII of 1878, Section 36;
 Act IX of 1879, Sections 46, 58A, 63, and 65A;
 Act VI of 1880, Sections 26, clause 4, and 38;
 Act IX of 1880, Sections 49, and 98;
 Act II of 1882, Section 70;
 Act I of 1885, Section 12;
 or in the following sections and portions of the following Acts passed by the Governor-General in Council, that is to say—
 Act VII of 1870, "The Court Fees' Act," Sections 19G, 19H, and the note to paragraph 12 of Schedule I;
 Act XIX of 1883, Section 7;
 Act XII of 1884, Section 5;
 Act VIII of 1885, Section 114:

- (4) in the case of a person to whom the collection of tolls has been farmed under the provisions of Section 8 of Bengal Act V of 1864, or of the sureties of such person—any sum of money due in respect of such farm:
- (5) any arrears of revenue or rent payable to the Secretary of State for India in Council from any raiyat or from any person holding any interest in land, pasturage, forest rights, fisheries, and the like, whether such interest is or is not transferable:
- (6) in the case of property which, under the provisions of any law for the time being in force, has been taken under the charge of, or is managed by, the Court of Wards or the Revenue Authorities on behalf of a private individual—any arrears of rent or of other demands recoverable as rent, whether such arrears became due before or after the management devolved upon such Court or such Authorities:

Provided that this clause shall not apply to any arrears of rent at an enhanced rate, unless such enhancement has been made by a registered agreement or has been confirmed by a competent Court.

(7) any sum payable to a Public Officer of Government in respect of which the person liable to pay the same has agreed by a written instrument duly registered that it shall be recoverable under the provisions of this Act:

(8) any fee, duty, tax, or other demand, which by any Act passed hereafter shall be declared to be recoverable under the provisions of this Act;

the Collector may make under his hand, and in the Collector may make a certificate of the unpaid demand, form No. 2 in the Schedule annexed to this Act, a certificate of the amount of such arrears so remaining unpaid, and may cause the same to be filed in his office: provided that no such certificate shall be made in respect of any such demand, the recovery of which is barred by any law of limitation for the time being in force.

8. (a) Subject to the provisions of this Act, every certificate made under the provisions of section 7

shall, as regards the remedies for enforcing the same, and so far only, have the force and effect of a decree of a Civil Court. In the cases other than case (6) mentioned in the said section 7, the Secretary of State for India in Council, and in the said case (6) the private individual therein mentioned, or, if such private individual be a Minor, Lunatic or Ward of Court, then such Minor, Lunatic, or Ward of Court by his next friend, shall be deemed to be the decree-holder, and in all the cases mentioned the person therein named as debtor shall be deemed to be the judgment-debtor.

(b) *When a certificate has been made under the provisions of section 16 of the "Revenue Sale Act, 189," the person on whose application the certificate been made shall be deemed to be the decree-holder, and all proceedings taken by the Collector under this Act shall be taken at the instance, at the cost, and on the responsibility of such decree-holder and not otherwise.*

9. (a) When any arrear of any of the public demands specified in section 7 is unpaid by any person

In case of arrears of public demand payable to Officer other than Collector, such Officer may make requisition to Collector.

liable to pay such public demand to a Public Officer other than a Collector, or when any such demand as is specified in clause (6) of the said section is unpaid by any person liable to pay the same to a Manager appointed by the Court of Wards, such Officer or such Manager may make to the Collector of the district, in which such person resides, or in which such demand is payable, or (if the Collector of the district shall so direct) to a Collector, a requisition in writing in form No. 3 in the Schedule annexed to this Act: provided that no such requisition may be made in respect of any such demand, the recovery of which is barred by any law of limitation for the time being in force.

(b) Every such requisition given by a Manager shall be verified by such Manager in accordance with the provisions of the Code of Civil Procedure as to the verification of plaints, and there shall be payable in respect thereof a court-fee of the same amount as is payable under the Court-fees' Act for the time being in force in respect of a plaint for the recovery of a sum of money equal to that stated in such notice.

Act VII (B.C.) of 1880, section 8, first clause.

New, adapted from Bengal Act IX of 1880, section 49.

Act VII (B.C.) of 1880, section 9.

Act VII (B.C.) of 1880, section 10.

Ditto ditto, section 11.

Ditto ditto, section 12.

(c) On receipt of such requisition such Collector, if satisfied that such demand is justly recoverable, may make under his hand, and in the form No. 2 in the Schedule annexed to this Act, a certificate of the amount of such arrears so remaining unpaid, together with the cost of any court-fee paid in respect of any requisition under the last preceding clause and shall cause the same to be filed in his office.

(d) The provisions of section 8 shall apply to every such certificate.

10. When a certificate has been filed in the office of a Collector under the provisions of section 5 or section 7, or section 3, such Collector shall issue to the judgment-debtor a copy of such certificate and a notice in form No. 4 in the Schedule annexed to this Act. From and after the service of such notice, such certificate shall bind all immoveable property of such judgment-debtor situate within the jurisdiction of such Collector in the same manner and with like effect as if such immoveable property had been attached under the provisions of section 274 of the Code of Civil Procedure. A copy of such certificate may be transmitted by post under the provisions of section 223 of the Code of Civil Procedure to any other Collector for the purpose of being filed in his office, and as soon as it is so filed, such certificate shall, if the aforesaid notice has been served, bind in like manner all immoveable property of such judgment-debtor situate within the jurisdiction of such last-mentioned Collector.

11. If in any case other than the case mentioned in clause (6) of section 7, the Collector is satisfied that any person against whom a certificate has been filed under the provisions of section 5, or section 7, or section 9, is likely to conceal, remove, or dispose of the whole or any part of his moveable property, and that the realization of the amount of such certificate will in consequence be delayed or obstructed, he may at any time after making such certificate direct an attachment of the whole or any part of the moveable property of such person. Such attachment shall be made in the manner provided in the Code of Civil Procedure for attaching moveable property, and subject to the provisions of section 266 of the same Code. Such property may be sold for the purpose of satisfying such certificate, if no petition of objection is filed under section 12, or if any such petition is filed, then as soon as it has been heard and determined.

12. If a judgment-debtor who has been served with a notice under section 10 denies his liability to pay the whole or any part of the amount for which such certificate has been made and filed against him, he may at any time within thirty days after service of such notice or, where no such notice has been duly served, within thirty days after the

execution of any process for enforcing such certificate, file a petition denying his liability as aforesaid, before the Collector by whom such certificate has been made. Such petition shall be in, or as nearly as possible in, the form No. 5 in the Schedule annexed to this Act.

13. Such Collector shall fix a day for hearing

Day to be fixed for hearing such petition. Collector to determine the liability of the petitioner. Certain provisions of the Code of Civil Procedure to apply to the inquiry.

any such petition so filed, and upon such day, or any subsequent day to which such hearing may be adjourned, shall determine whether such petitioner is liable for the whole or any

part of the amount for which such certificate was made, and may set aside or modify or vary the certificate accordingly. Every such Collector shall, for the purpose of hearing any such petition and determining as aforesaid, exercise all or any of the powers of a Civil Court in respect of summoning, causing the attendance of, and examining witnesses, and in respect of causing the production of documents; and the provisions of the Code of Civil Procedure applicable to these matters shall apply to a Collector exercising these powers.

14. The Collector shall have full power to direct

Collector may award costs against petitioner.

that the costs of such petition and of the hearing thereof shall be paid by the petitioner, and in any case in which a Collector directs the payment of such costs by any such petitioner, the amount thereof shall be

Such costs how to be realized.

added to the amount entered in the certificate, and shall be recoverable as if the same had been originally entered therein.

15. The person deemed to be the judgment-

Judgment-debtor may bring a suit in the Civil Court to contest the certificate.

debtor under the provisions of section 8 may at any time within one year after the service upon him of such

notice as is mentioned in section 10 bring a suit in the Civil Court to contest his liability to pay the amount stated in the said certificate, and to have such certificate cancelled: but no such suit shall be entertained unless such judgment-debtor has stated in a petition presented to the Collector under section 12 the ground upon which he claims to have such certificate cancelled, or unless, having omitted to state such ground in such petition as aforesaid, he can satisfy the Civil Court that there was good reason for such omission. If no such suit is instituted within the said period of one year, or if any such suit

Certificate when absolute.

having been instituted is decided against such judgment-debtor, such certificate shall become absolute, and shall have to all intents and purposes the same force and effect as a final decree of a Civil Court.

16. No certificate duly made under the provisions of this Act shall be cancelled by a Civil Court otherwise than on one or more of the following grounds, that is to say—

- (1) that the amount stated in the certificate was actually paid or discharged before the making of such certificate;
- (2) in the case of fines imposed, or costs, charges, expenses, damages, duties or fees adjudged, by a Collector or a

Act VII (B.C.) of 1880, section 13.

Ditto, section 14.

Ditto, section 8 (b), first part.

Ditto, section 8 (b), second part.

Public Officer under the provisions of any Regulation or Act for the time being in force—that the proceedings of such Collector or Public Officer were not in substantial conformity with the provisions of such Regulation or Act, and that in consequence the judgment-debtor under the certificate suffered substantial injury from some error, defect or irregularity in such proceedings :

(3) in cases other than those mentioned in clause (2)—that the amount stated in the certificate was not due by the judgment-debtor under the certificate :

(4) want of jurisdiction.

Nothing in this proviso shall be construed to interfere with the ordinary original jurisdiction of the High Court at Fort William in Bengal, or with the jurisdiction of the Calcutta Court of Small Causes.

Act VII (B.C.), 1880, section 15.

17. The Collector of a district may, *by a general or special order*, refer to any Collector, Deputy Collector, Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner subordinate to him, any petition or petitions filed under section 12, and such Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner shall hear and determine such petitions accordingly. The provisions of sections 13 and 14 shall be applicable to any such Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner to whom any such petitions have been so referred.

Ditto, section 16.

18. An appeal from any order of an Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner may be preferred to the Collector of the district or to a Collector within fifteen days, and an appeal from any original order of a Collector may be preferred to the Commissioner within thirty days after the making of such order respectively. Pending the decision of such appeal, execution may be stayed, if the Appellate Authority so direct, but not otherwise :

New.

Provide that, when the Lieutenant-Governor shall so direct, appeals from the orders of a Collector who is not the Collector of the district may be preferred to the Collector of the district. Such appeals shall be preferred within fifteen days after the making of such order.

Ditto, section 17.

19. There shall no appeal, as of right, lie from any order of a Collector passed on appeal from an order of an Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner; but the Commissioner and the Collector of the district (if so empowered by the Lieutenant-Governor) may in any case in which they think fit revise any order passed by a Collector, Assistant Collector, Deputy Collector, Assistant Commissioner or Extra Assistant Commissioner.

20. Every certificate made under the pro-

Certificate may be enforced after one month from notice, or when petition of objection disposed of.

visions of section 5, or section 7, or section 9, may be enforced and executed with interest and costs upon the expiry of one month

after service of the notice mentioned in section 10, or when any such petition as is mentioned in section 12 has been filed, then as soon as such petition has been heard and determined.

21. Such certificate may be so enforced and

Certificate may be enforced under the provisions of the Code of Civil Procedure as a decree for money.

executed by all or any of the ways and means mentioned and provided in and by the Code of Civil Procedure for the enforcement

and execution of decrees for money.

And all the practice and procedure provided by the hereinafter specified sections of the said Code of Civil Procedure shall apply to every execution issued to enforce such certificate and realize the amount recoverable thereunder; namely—

(1) sections 223, 224, 225, 226 and 228 concerning the execution of decrees out of the jurisdiction of the court by which they were passed;

(2) sections 266, 267, 269, 271, 274 and 284 concerning attachment of property;

(3) sections 278, 279, 280, 281 and 283 concerning claims to attached property;

(4) sections 286, 287, 288, 289, 290, 291, 292, and 293 concerning sales in execution of decrees;

(5) sections 297, 298, 299, 300 concerning sale and delivery of moveable property;

(6) sections 306, 307, 308, 309, 314, 316, 317, 318 and 319 concerning sale and delivery of immoveable property;

(7) sections 311, 312, 313, and 315 concerning applications to set aside sales;

(8) sections 320, 321, 322, 322B., 322C., 322D., 323, 324, 324A., 325, 325A., 325B., 325C., 326 and 327 concerning the transfer to the Collector of the execution of certain decrees and the procedure to be followed in such cases;

(9) sections 328, 329, 330, 331, 332, 333, 334 and 335 concerning resistance to execution;

(10) sections 336, 337, 337A., 338, 339, 340, 341, 342 and 343 concerning arrest and imprisonment;

(11) the whole of the sections contained in chapter XX concerning insolvent judgment-debtors;

(12) section 588, clauses (16) and (17), concerning appeals from orders.

22. (a) In enforcing and executing such

Powers by whom to be exercised.

certificate, all the duties, powers, and authorities by the said Code imposed or

conferred on the Court shall be exercised by the Collector in whose office any such certificate, or any copy thereof transmitted for execution under the provisions of section 223 of the said Code has been filed.

(b) The power conferred on the High Court of making rules for the guidance of the Courts in the exercise of their duties under section 287 of the Civil Procedure Code shall in respect of proceedings under this Act be exercised by the Board of Revenue. All such rules shall be published in the Calcutta Gazette and shall thereupon have the force of law.

Act VII (B.C.) of 1880, section 18

Ditto, section 19, clause 1.

Re-arranged and expanded.

Act VII (B.C.) of 1880, section 19, clause 2.

New.

Act VII (B.L.) of 1880, section 19, clause 3.

Ditto, section 20.

(c). Subject to the control of the Collector of the district, and save and except in respect of the provisions relating to insolvent judgment-debtors, any of the said duties, powers, and authorities may be exercised by any Assistant Collector, Deputy Collector, Assistant Commissioner, or Extra Assistant Commissioner subordinate to such Collector.

23. If any immoveable property is sold in execution of a certificate under the provisions of section 18, and if such certificate is subsequently set aside by a competent Court, such Court may set aside such sale of such immoveable property, and in any case in which such sale is so set aside, such Court shall direct that the amount of the purchase-money be refunded to the purchaser with or without interest, as such Court thinks fit: provided that no such sale shall be so set aside unless such purchaser has been made or added as a party to the suit brought to set aside such certificate.

Ditto, section 21.

24. Every Collector shall cause to be kept in his office a register in such form as may from time to time be prescribed by the Board of Revenue, and shall cause to be entered in such register the particulars of every certificate made under this Act, which, or a copy of which, has been filed in his office. Such register shall be open during office hours to the inspection of any one desiring to inspect the same, and a fee of eight annas, or such fee not exceeding eight annas as the Board of Revenue may prescribe, shall be chargeable for such inspection.

Ditto, section 22(a).

25. Payment of the amount due under a certificate may be made by instalments, if the Collector who made such certificate so direct. The payment of any instalment shall be entered in the register mentioned in section 24.

Ditto, section 22 (b).

26. When the total amount due under a certificate has been paid and satisfied, the Collector in whose office such certificate was originally filed shall enter satisfaction upon such certificate under his hand and signature; and shall cause the same to be entered in the register mentioned in section 24.

Ditto, section 22 (c).

27. When a copy of such certificate has been transmitted to another Collector, or when such certificate has been made under the provisions of section 9 upon notice from a Public Officer other than a Collector or from a Manager appointed by the Court of Wards, such satisfaction shall be communicated to such other Collector or to such Officer, or to such Manager.

Ditto, section 22 (d).

28. When a sum has been levied or received by a Collector in respect of a certificate, a copy of which has been transmitted to him and filed in his office, such Collector shall send such sum to the office in which such certificate was originally made.

29. Every Collector of a district, Collector,

Certain officers to be deemed to be acting judicially in the discharge of their duties under this Act.

Assistant Collector, Deputy Collector, Assistant Commissioner and Extra Assistant Commissioner, and every such Public Officer as is mentioned in section 9 shall, in the discharge of his functions under this Act, be deemed to be a person acting judicially within the meaning of Act XVIII of 1850 passed by the Governor-General in Council.

Act VII (B.C.) 1880, section 23

30. All Collectors of districts, Collectors,

Collectors, &c., to be subject to the supervision and control of Commissioners and Board in discharge of their duties under this Act.

Assistant Collectors, Deputy Collectors, Assistant Commissioners, and Extra Assistant Commissioners shall, in the performance of their duties under this Act, be subject to the general supervision and control of the Commissioners of Divisions and the Board of Revenue; and no officer, although specially appointed to perform the functions of a Collector under this Act, shall exercise the appellate powers of a Collector under section 18 of this Act, unless he is expressly authorized in that behalf by the said order of the Lieutenant-Governor; and, unless the contrary shall be expressly directed in such order, every officer so specially appointed shall exercise his functions subject to the control of the Collector of the District.

Ditto, section 24.

31. The provisions of sections 73, 74, 75, 76,

Provisions regarding service of notices.

78, 79, 80, 81, 82, 83, 84 and 85 of the Code of Civil Procedure shall be applicable, so far as circumstances permit, to the service of all notices issued under this Act.

Board's Certificate Procedure Manual, section , rule 11.

New.

SCHEDULE.

FORM NO. 1 (See Section 5).

Certificate of Arrears of Revenue filed in the Office of the Collector of the District of (name of District).

No. of Certificate.	Name of Debtor.	Address of Debtor.	Amount of arrears of revenue for which this Certificate is made, and period for which such arrears are due.	Estate or tenure for which arrears of revenue are due.

I hereby certify that the abovementioned sum of Rs. is due to the Secretary of State for India in Council from the abovenamed

Dated this day of 18 A. B.,
Collector of

FORM No. 2 (See Sections 7 and 9).

Certificate of Arrears of Public Demands filed in the Office of the Collector of the District of (name of District).

No. of Certificate.	Name of Debtor.	Address of Debtor.	Amount of the Public Demand for which this Certificate is made.	Particulars of Public Demand for which this Certificate is made, and Public Officer (or Manager, and of what estate) to whom due.

I hereby certify that the abovementioned sum of Rs. _____ is due to the Secretary of State for India in Council [or to A. B., a Ward of Court, or a Minor, or a Lunatic, by his next friend C. D.] from the above named

Dated this _____ day of _____ 18 . A. B.,
Collector of _____

FORM No. 3 (See Section 9.)

REQUISITION.

To the Collector of the District of _____

Name of Debtor.	Address of Debtor.	Amount of Public Demand for which this requisition is made.	Nature of the Public Demand for which this requisition is made.

The above sum of Rs. _____ is due from the said _____ in respect of _____ day of _____

Certified this _____ day of _____

A. B.

(Official designation.)

FORM No. 4 (See Section 10).

NOTICE.

To (Insert name of judgment-debtor).

You are hereby informed that a Certificate for Rs. _____ due from you on account of _____ has been this day made by me against you under the provisions of section _____ of Act _____ of 1880 passed by the Lieutenant-Governor of Bengal in Council, and that such certificate has been filed in this office. If you deny your liability to pay the said sum of Rs. _____ you may within thirty days show cause why

such certificate should not be executed. If you fail to show cause within thirty days, or do not show sufficient cause, such certificate will be executed in the same manner as if it were a decree of a Civil Court for the said sum of Rs. , unless you pay the amount into this office. Until such amount is paid, you are hereby prohibited from alienating your immovable property or any part of it by sale, gift, mortgage, or otherwise.

A copy of the certificate above mentioned is hereto annexed.

Dated this day of 18 A. B.,
Collector of

FORM No. 5 (See Section 12).

To

THE COLLECTOR OF THE DISTRICT OF

The humble petition of (name of petitioner) of
(address).

SHEWETH—

That a Certificate No. for the sum of Rs. has been filed against your petitioner in your office under the provisions of section of Act of 1880 passed by the Lieutenant-Governor of Bengal in Council.

That your petitioner respectfully denies his liability to pay the said sum of Rs. (or, where the liability to pay part is admitted, denies his liability to pay more than Rs.), and this for the following reasons:—

That the facts above stated are true to the best of your petitioner's knowledge and belief.

Your petitioner therefore respectfully prays that the said Certificate may be set aside (or modified or varied).

Draft Bill to amend the Public Demands Recovery Act, 1880.

EXPLANATORY NOTES BY MR. BEAMES.

1. Act VI (B.C.) of 1880 was intended to be read as one with Act XI of 1859, the law for the sale of estates for arrears of revenue. Section 2 of the former Act prescribes that "this Act, so far as is consistent with the tenor thereof, shall be construed as one with Act XI of 1859 passed by the Governor-General in Council and Act VII of 1868 passed by the Lieutenant-Governor of Bengal in Council." This arrangement, though in accordance with the state of the law since 1868, has been found to give rise to serious practical inconveniences. Before 1868 sums due to Government by individuals could only be realized in the same manner as an arrear of land revenue, that is, by the sale of the defaulter's estate, or by the still more tedious and expensive process of a civil suit. When a more summary procedure for the realization of such dues was introduced in 1868, it was treated as supplementary to the old procedure and the two systems continued, and still to a certain extent continue, to be mixed up together. But now that the certificate procedure has been in force for upwards of twenty years, and all classes of the population are familiar with it, it has become possible, and will be extremely advantageous, to separate the two processes, which have in fact nothing in common, and have probably been kept in a state of relation to one another more from the influence of association than for any more valid reason. A separate Bill has accordingly been prepared for the amendment of the sale law, and the present Bill is intended similarly to amend the certificate law. The two processes, that by which the land revenue due from the proprietors of estates is realized, and that by which a great number of minor demands—fees, fines, duties, taxes, costs and the like—are recovered from the public in general, will henceforth stand apart from, and independent of, each other, each having its own statute and its own procedure.

2. In addition to this reason for amending the present Act there are also complications caused by the peculiar wording of certain sections, and omissions to provide for certain necessary contingencies. Recently also a decision of the High Court, which will be fully discussed later on, has put upon one section of the Act an interpretation which it was undoubtedly not intended to bear, and which seriously affects the successful working of the law. The alterations made by the present Bill will now be explained in detail.

3. Section 2.—As above explained, the words by which Act VII (B.C.) of 1880 was directed to be construed as one with Act XI of 1859 and Act VII (B.C.) of 1868 have been omitted. The provisions necessary for making the certificate procedure independent and self-contained have been inserted in various sections of the Bill. The provision, however, that the powers given by the Act are to be deemed to be in addition to the powers conferred by any Act now in force has been retained. The certificate procedure is now applicable to so many Acts that the removal of this provision might cause some confusion in the proceedings of various departments; and though it is not likely that it will often have any practical significance, it will be on the whole safer to retain it.

4. Section 4.—Very great difficulty has been caused by the vagueness of the definition of "Collector" in this section. Two classes of officers are referred to in the Act, the Collector of the district and the Collector, but no definition of the former is given. In section 7 of the Act the power of issuing certificates is given to the Collector of the district, and this was at first held to imply that this power could not be exercised by any one but the Collector-Magistrate, the officer at the head of the revenue administration of a district. Seeing that in most districts many thousands of certificates are issued every year, it would be practically impossible for the District Collector himself to issue them all; and though the Government has, in consequence of the great increase of work, invested numerous Deputy Collectors with the powers of a Collector under the Act, yet a strict interpretation of the words of section 7 would seem to indicate that none of these officers can issue certificates under that section. On the other hand, certificates under section 5 can apparently be issued by any officer invested with the powers of a Collector. The Act itself affords no explanation of this inconsistency. It appears also that only the District Collector can refer petitions for enquiry to Deputy Collectors under section 15, while in section 19 a Deputy Collector can exercise powers subject to the control, not, as might be expected, of the Collector of the district, but of the Collector.

5. The confusion as to powers caused by this defective wording of the Act was removed by an ingenious opinion given by the Hon'ble the Advocate-General in 1882. In this opinion it was pointed out that "in section 4 (b) Collector means the Collector of the district or any officer specially appointed by the Lieutenant-Governor to perform the functions of a Collector. Any officer so specially appointed is therefore a Collector, and as a Collector is a Collector of the district, any officer specially appointed is a Collector of the district and can issue certificates under section 7." The Advocate-General, though holding that the above results naturally flowed from the section as worded, expressed a doubt (which will be shared by most officers) whether this result was intended by the framers of the law. And in fact if the view first held, that none but the actual Collector of the district could issue certificates under section 7, did not

go far enough, the view propounded by the Hon'ble Advocate-General goes too far. It was obviously intended, on the analogy of many other Acts referring to the administration of various revenue departments, that while power to transact the ordinary business of the certificate system should be conferred on Deputy Collectors and other similar officers, the general direction, control and supervision of this, as of all other departments, should rest solely with the Collector of the district. But by the Advocate-General's opinion subordinate officers are not only admitted to the power of conducting ordinary business, but they are invested with full powers of control and are rendered independent of the Collector, to whom in this as in all other matters they should properly be subordinate. The opinion therefore removes one difficulty only to introduce another.

6. Owing to the peculiar arrangement of section 4 (b) it is very difficult to make such alterations as will establish a clear distinction between the supervising and controlling "Collector of the district" and the "Collector," a subordinate officer empowered to perform judicial and executive functions, but not to usurp the authority of the head of the district, while the latter still retains power to perform all the functions of a "Collector" under the Act, whenever for any reason it may seem fit to him to do so.

7. The steps taken to solve this perplexing problem are these. A definition of "Collector of the district" has been introduced, taken from the Cess Act. Then in clause (b), instead of saying that "Collector" means "Collector of the district or any officer, &c.," a phrase which puts the two classes of officers on a level, the words "and includes, subject to the provisions of section 30, any officer, &c.," have been introduced. Section 30, taken from the Board's Rules relating to the certificate procedure, provides that every officer empowered under the Act shall exercise his functions subject to the control of the Collector of the district. The word "Collector" has been substituted for "Collector of the district" in section 7, and similar corrections have been made, where necessary, in other sections of the Bill. It is hoped that these alterations, should they become law, will remove the uncertainty hitherto prevailing on this point, and admit of the general employment of Deputy Collectors and other subordinate officers in performing the ordinary business of certificate cases without destroying the control of the District Collector.

8. Section 7, clause 3.—The list of Acts to which the certificate procedure is applicable has been brought up to date by the addition of the India Council and Bengal Council Acts passed since 1880. Among these is the Ferry Act (Bengal Act I of 1885), the insertion of which in clause (3) renders necessary the cancellation of clause (5) of the Act, which referred to the old law on ferries, Regulation VI of 1819, now repealed.

The proviso at the end of clause (7)—clause (6) of the Bill—has been remodelled to bring it into accordance with the provisions of the Bengal Tenancy Act of 1885, which has rendered the law on the subject of enhancement more definite than it was at the time when the Public Demands Act was framed.

9. Section 8.—A clause (b) has been added to give effect to the proposed application of the certificate procedure to the case of joint proprietors of an estate who to save the estate from sale may have paid up the whole amount of revenue in arrears. A provision allowing such persons to apply to the Collector to recover the excess payments from their co-sharers by certificate has been inserted in the Revenue Sales Bill now before Government, and this clause is necessary to complete the procedure.

10. Section 9 (a).—The word "notice" applied in the Act to the communication addressed by a public officer or a Court of Ward's Manager to the Collector has been replaced by the word "requisition." The word "notice" is used for those documents by which a Collector gives information to, or makes any demand upon, the public, and the use of this word for an entirely different purpose is calculated to give rise to confusion. The word "requisition" seems a more appropriate designation for the communication dealt with in this and the following sections.

11. In this section the difficulty above discussed about "Collector" and "Collector of the district" occurs again. It may be in some cases desirable that the Manager's requisition should be addressed to the Collector of the district, as that officer is responsible for the proper management of the Ward's estate, but there are many instances where the Collector, for good and sufficient reasons, and with the sanction of superior authority, has made over the supervision of some particular Ward's estate to a Deputy Collector, and in such cases it is not necessary that the requisition should be addressed to the Collector. The words in italics have therefore been introduced to enable the Collector of the district to arrange for the submission of requisitions to the Collector, that is, to the officer empowered under the Act, the "certificate officer" as he is usually called. This officer will under clause (c) satisfy himself that the demand is justly recoverable. In cases other than Wards' estates also it will often be convenient that requisitions should be presented to the certificate officer direct.

12. Section 9 (c).—The words in italics have been inserted to facilitate the recovery from a defaulter of the cost of the court-fees required to be paid by a Manager under clause (b) of this section. Suggestions to this effect have been made by the Board to Government on previous occasions, and so far back as 1831 Government consulted the Board on the subject of a draft Bill containing the provision now inserted, but action was deferred till a revision of the whole Act should be undertaken. The present seems therefore a proper opportunity to give effect to them.

13. Section 15.—This consists of the first part of clause (b) of section 8 of the Act, which has been removed to this place as coming more appropriately in the order of events after and not before the proceedings on objection. This transposition of the section has necessitated a slight alteration in the opening words of the section.

14. *Section 16.*—This is the remaining portion of clause (b) of section 8, which follows in natural sequence in this place.

15. *Section 17.*—Section 15 of the Act. This is one of the instances referred to above, in which alteration is necessary to remove the confusion existing in the Act between "Collector" and "Collector of the district." The officer referred to in this section is clearly the Collector of the district, who is the only officer to whom the Assistant and Deputy Collectors mentioned in the section can be said to be "subordinate." When a Deputy Collector is vested with the powers of a Collector under this Act, it cannot be said that all the other Deputy and Assistant Collectors in the district become subordinate to him, and it would give rise to much confusion and inconvenience if he were allowed to refer as many objection petitions as he pleased to his fellow Deputies for decision. This power of reference should be restricted to the Collector who, as the head of the district, is responsible for the due despatch of public business, and must therefore have the power of distributing work among his various subordinates, so that all shall be fully occupied and none overburdened. It would upset the Collector's arrangements for the distribution of work if a Deputy Collector exercising the powers of a Collector under the Act were able to throw upon any officer a number of objection cases whenever he pleased. The word "Collector" has therefore been altered to "Collector of the district." At the same time to avoid the necessity for the District Collector passing an order of reference on each case which would be onerous, and to provide against delay being caused by the Collector being out in camp, and the like, the words "by a general or special order" have been inserted. This will enable a Collector to distribute the objections in groups or classes among his subordinates. Thus one officer might be empowered to take up objections in Ward's cases, another in Irrigation, a third in Cess cases, and so on.

16. *Section 18.*—The proviso to this section (section 16 of the Act) has been added to meet the case of a certain subdivision where, owing to the existence of a large Government estate, the certificate work is unusually heavy. The Subdivisional Officer is vested with the powers of a Collector under this Act, and as the law now stands appeals from his orders would be to the Collector. But it has been suggested that it inflicts some hardship upon the ryots to compel them to go to the Commissioner's head-quarters to prefer their appeals, and that as the Collector of the district is the immediate superior of the Subdivisional Officer, he is the natural appellate authority in such cases. As there may be other instances of this kind in other parts of Bengal, the provision has been made generally applicable. The distinction between Collector of the district and "Collector" has been inserted in this section in such a way as to allow of appeals being heard by a "Collector" when such a course may be convenient, and with reference to the new part of section 30 below.

17. *Section 19.*—The words in italics have been inserted for the reasons given in section 18 above.

18. *Section 20.*—The sums entered in certificates are such as in many cases legally bear interest, and it seems equitable that this interest, as in the case of a civil court decree, together with the costs of execution, should be leviable together with the principal sum. The words "with interest and costs" have therefore been inserted.

19. *Section 21.*—This is the most important section in the Act (section 19), and the one which has given rise to most controversy. The principal difficulties have reference to the interpretation of the clause which specifies those parts of the Civil Procedure Code which are applicable to this Act. This clause was taken with a few alterations from Act VII (B.C.) of 1868. The Civil Procedure Code in force when the Act of 1868 was passed was Act VIII of 1859, but by the time that the present Act came to be passed this had been superseded by Act X of 1877, which in its turn was not long after replaced by Act XIV of 1882, so that the specification of the various parts of the Code applicable to certificates no longer corresponded to the arrangement of the actual Code. This was particularly the case with the first item in the clause, which runs "in respect of sales in execution of decrees." This expression, though defining with sufficient accuracy the subject as it stood in Act VIII of 1859, fails when applied to the present Civil Procedure Code, Act XIV of 1882, in which there is no one chapter so headed. The other items in the clause also do not very accurately correspond to the headings of the present Code, and there is thus considerable room for doubting which sections of the Code do, and which do not, apply to certificate cases.

20. In the first item mentioned above this vagueness of expression has led to a serious practical difficulty. It had for a long time been held by the Board, supported by the legal advisers of Government, that sections 311 and 312 of the Civil Procedure Code were applicable to sales of immoveable property in execution of a certificate. A circular was issued by the Board to this effect in August 1883, in which it was laid down that "the rules prescribed by section 311 *et seq.* of the Civil Procedure Code come strictly within the terms 'practice and procedure' used in section 19 of the Act" and that therefore those sections are applicable to cases of sale under the Public Demands Recovery Act. The effect of this instruction is that a person desiring to set aside a sale under the above Act would have to apply under section 311 to the Court which held the sale to set it aside on the ground of a material irregularity causing substantial injury to the applicant, and that the Court, if allowing the objection, might set aside the sale under section 312, or, if the objection be not allowed, might refuse to do so. Under section 588, clause 16, an appeal would lie from such orders.

21. The procedure thus indicated remained in force till 1886, when, in the case of *Sadhusaran Singh versus Panchdeo Lall and others*, 14 I.L.R. Cal. p. 1, the High Court held a different view. The portion of the judgment relevant to the present subject is as follows:—

"Supposing there are material irregularities in publishing or conducting a sale held in execution of a certificate issued under Bengal Act VII of 1880, and supposing such irregularities have caused substantial injury to the owner of the property sold, what are his remedies? Section 19 of Bengal Act VII of 1880 says that all the practice and procedure provided by the Code of Civil Procedure in respect of sales in execution of decree, &c., &c., shall apply to every execution issued to enforce a certificate. It seems to us that the words "in respect of sales in execution of decrees" do not include any proceedings instituted after the sale for setting it aside. We think, therefore, that only the provisions of the Procedure Code up to the stage at which the auction sale is held apply to an execution issued to enforce a certificate, and therefore the provisions of sections 311 and 312 are not applicable..... We are of opinion that the only remedy of a judgment-debtor, whose property has been sold in execution of a certificate issued under Bengal Act VII of 1880, and who has sustained substantial injury by reason of a material irregularity in publishing or conducting the sale, is by way of appeal under section 2 of Bengal Act VII of 1868..... We think that by the force of section 2 of Act VII of 1880 the provisions in section 2, Bengal Act VII of 1868, became applicable to a sale under an execution issued upon a certificate made under Act VII of 1880."

22. This last argument is based upon the fact that in section 2 of the Act of 1880, it is directed that the Act shall be construed as one with Act XI of 1859 and Act VII (B.C.) of 1868. This provision, as mentioned in paragraph 3 above, it is now proposed to repeal and thus remove the confusion that has arisen from regarding the three Acts as one. But as the law stands at present, the wording of section 2 afforded grounds for the view held by the learned Judges. It also carried them a step further; for the decision goes on to say: "That being so" (i.e. the three Acts being regarded as one) "the sale in this case may be considered as a sale under section 2 of Act VII of 1868 within section 2 of that Act. The appeal under that section against the sale therefore lies to the Revenue Commissioner. Similarly, all sales under Act VII of 1880 would become final in the manner and at the time provided in section 27 of Act XI of 1859." The ruling in this case was followed by another Bench of the High Court in the case of *Ramlagan Ojha versus Bhawani Ojha*, 14 I.L.R., 9.

23. The effects of this judgment upon the working of the certificate system are, in the opinion of the Board of Revenue and all officers of experience, very serious. In the first place appeals against sales must be made to the Commissioner, and thus a costly and tedious process is substituted for the simple and expeditious one of applying under section 311 to the Court which held the sale. In many parts of Bengal many thousands of certificates are issued every year, often for comparatively small sums, and it is unavoidable that errors should creep in, and a certain number of erroneous sales should be made. The person injured should have a ready and simple means of redress, such as is provided by section 311; but under the High Court ruling he has to go to the Commissioner's Court, often a great distance off, and institute a regular appeal.

24. Secondly, if, as held by the High Court, all proceedings after the sale are governed by Act XI of 1859, then the certificate to be given by the Collector to the purchaser must be in the form prescribed by section 28 of that Act. But what passes by a sale under Act VII of 1880 is the right, title, and interest of the judgment-debtor, and this may be merely a share in an estate, or a certain number of fields, a tenure, or a ryot's holding; whereas the certificate under section 28 of Act XI conveys an absolute title to an estate or share of an estate on the Collector's towjih or rent roll, and not merely the rights and interests of the judgment-debtor. A certificate under this section may therefore be issued for something which has not been sold, and the person injured can have no redress but by a civil suit under section 33. Even this remedy is denied him if the usually received view is acted upon, under which no one but a defaulter can appeal to the Commissioner, and no sale can be annulled by a Civil Court unless there has first been an appeal to the Commissioner.

25. The remedy for the various inconveniences caused by this decision of the High Court seems to consist in defining accurately those portions of the Civil Procedure Code which are applicable to sales under a certificate. This has now been done in section 21 of the Bill. The list has been drawn so as to include all sections of the Procedure Code which can in any way be rendered applicable to sales under this Act, especially the important sections 311 and 312, and the order of the items has been re-arranged so as to bring it into accordance with the arrangement of subjects in the Civil Procedure Code now in force (Act XIV of 1882). Although the list of sections now given may at first sight appear lengthy, yet a comparison of the twelve groups of this section of the Bill, with the corresponding portion of section 19 of the Act, will show that no new sections have been introduced; the law remains as it was; no portions of the Civil Procedure Code which were not, previous to the High Court's ruling, generally understood to be applicable to certificates have now been made applicable. All that has been done is to state definitely, one by one, the sections applicable, so that in future no doubt whatever may exist on the subject. There may be room for question whether this or that section should be included or excluded from the list, and this will doubtless be duly considered in Committee. The principle followed has been, while adhering to the specification given in section 19 of the Act as far as its vagueness would allow, to exclude all sections of the Code which refer to matters not likely to come within the limited scope of certificate proceedings, or which would tend to make the proceedings unduly complicated or protracted.

26. As regards the special question raised by the decision in *Sadhusaran Singh's* case, the mention of sections 311 and 312 in item (7) of the section removes all doubt, and makes it clear that the procedure for setting aside a sale will, if the Bill become law, be by petition to

the Court which held the sale, and not by appeal to the Commissioner, while the total dissociation of the certificate procedure from that of sales for arrears of revenue effected by the preparation of two separate Bills for the two processes will prevent any confusion arising from the supposed relation of the old section (2 of Act VII B.C. of 1868) to certificate sales. Further, the insertion of sections 314 and 316 in item (c) of the section makes it clear that the sale becomes final and possession is to be given under the terms of these sections, and not, as is assumed in the High Court's decision under the wholly inappropriate and inapplicable sections 28 and 29 of Act XI of 1859.

27. *Section 22.*—The final sentences of section 19 of the Act have here been thrown into a separate section under clauses (a) and (c), because section 19 was already too long. In clause (c) the words "Collector of the district" have been substituted for "Collector" in order to carry out the principle enunciated in paragraph 7 above, of establishing and carrying through the whole system of certificate procedure the distinction between the executive head of the district and an officer invested with the powers of a Collector.

28. Clause (b) is new, and is intended to meet a difficulty which has arisen. It has been represented by many Collectors that the rules issued by the High Court under section 287, of the Civil Procedure Code regarding sales of immoveable property, were not suitable for certificate sales, as they "not only entail expenses, but make the already tedious procedure still more tedious and dilatory." Two instances of this effect of the rules were brought into special prominence. In the first place, the rules require that ten days' notice shall be given to the defaulter before fixing the details of the sale proclamations; and secondly, a search is to be made in all registry offices for possible incumbrances on the property sold. It is obvious that when the Public Demands Act has already allowed ample delay to defaulters it is not necessary to allow still further time, and that in the case of the usually petty properties sold in certificate cases it is not necessary to institute an elaborate search for incumbrances. In fact, the High Court rules are made for a state of things which differs very considerably from that prevailing in certificate matters.

29. Under the circumstances, the Board adopted the course of directing Collectors to guide themselves by certain portions of the High Court rules only, and to pass over the rest as inapplicable; but the correctness of this course is open to question, for either section 287 is applicable to certificate sales or it is not. If it is not, then the whole of the High Court's rules cease to apply. If it is, then the whole of the rules apply, and as they have the force of law, it does not seem that an executive authority such as the Board of Revenue is competent to set aside any of them. The question as to which sections of the Civil Procedure Code are, and which are not, applicable to certificate matters being now set at rest by section 21 of this Bill, and section 287 having been therein declared to be one of those sections which is so applicable, it will follow, if this section of the Bill be passed, that so much of section 287 as directs that the High Court shall frame rules, and that those rules shall have the force of law, will be in force and cannot be set aside. As the most experienced revenue officers are unanimously of opinion that the High Court's rules, being made for a totally different class of work, are not suitable to certificate cases, and cannot be followed without imposing on parties to the case expense and delay, it seems advisable to transfer to the Board the power of making such rules as may be suitable to the circumstances of certificate sales. In making this transfer the Bill merely carries on the analogy of the general provisions of section 19, for if the Collector is substituted for the Civil Court, it is only consistent to substitute the Board—the chief revenue authority in these provinces—for the High Court. It will also not be disputed that no authority is so likely to be well acquainted with the peculiarities of certificate proceedings, or so well qualified to judge what rules should govern them as the Board of Revenue.

30. *Section 30.*—The latter part of this section, beginning at the words "and no officer," has been added to this section from the Board's rules in the Certificate Procedure Manual. The rule in question was issued with the sanction of Government, and its insertion here is thought advisable with reference to the distinction between "Collector" and "Collector of a district" made in section 4 (b) *ante*.

31. *Section 31.*—This is new. In the case of *Rakhal Chandra Rai Chowdhry versus Secretary of State*, 12 I. L. R., page 603, the High Court held that "no special provision is made in Bengal Act VII of 1880 as to the manner of service of the notice prescribed in section 10." This remark overlooks the fact that the mode of service is prescribed by section 5 of Act VII (B.C.) of 1868, and in section 2 of the Act of 1880 it is directed that the Act shall be construed as one with the Act of 1868, consequently the rules for the service of notices laid down in one Act would govern notices issued under the other. This is a striking instance of the inconvenience and confusion caused by the present state of the law. Now that Act VII of 1868 is about to be amalgamated with Act XI of 1859, and the certificate procedure entirely separated from that for revenue sales, it becomes necessary to avoid misleading and confusing references from one Act to another. This section has therefore been introduced prescribing the method of serving notices under the Act. In accordance with the system followed in other parts of the Act, the course has been adopted of declaring certain sections of the Civil Procedure Code applicable to notices issued under the Act, which is thus provided with a procedure entirely independent of any enactments relating to sales for arrears of revenue.

JOHN BEAMES, C.S.,

On Special Duty.

DRAFT BILL

TO

Amend the Revenue Sale Law.

ARRANGEMENT OF SECTIONS.

PREAMBLE.

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DRAFT BILL

TO

Amend the Revenue Sale Law.

WHEREAS it is expedient to consolidate and amend the laws relating to the sale of land for arrears of revenue and other demands realizable as arrears of revenue in the territories administered by the Lieutenant-Governor of Bengal: It is hereby enacted as follows:—

PART I.

PRELIMINARY.

1. This Act may be called *The Revenue Sale Act, 189*."

It extends to all the territories for the time being administered by the Lieutenant-Governor of Bengal, except the town of Calcutta and the scheduled districts

Extent. other than the Sonthal Parganas, Western Jalpaigori, the Western Duars, the districts of Darjiling, Hazaribagh, Lohardugga, Munbhum, the pargana of Dhalbhum, and the Kolhan in the district of Singhbhum.

Commencement. It shall come into force on such date (hereinafter called the commencement of the Act) as the Local Government, with the previous sanction of the Governor-General in Council, may, by a notification in the Calcutta Gazette, direct.

2. On the commencement of this Act, the Regulations and Acts specified in the first schedule hereto annexed are hereby repealed to the extent specified in the third column of that schedule; save so far as regards the trial of any suits that shall be pending at the time of the said commencement.

Repeal. But this repeal shall not revive any office, authority or thing abolished by such enactments, nor affect the validity of anything done or suffered, or any right, title, liability, or obligation accrued before the commencement of this Act.

All rules prescribed, appointments made, powers conferred, and notifications published under any such enactments shall, so far as may be, be deemed to be respectively prescribed, made, conferred, and published under this Act.

Any enactments or documents referring to any enactments hereby repealed shall be construed to refer to this Act or the corresponding portion thereof.

The trial of any suit which shall be pending at the time of the commencement of this Act shall proceed and be completed as if this Act had not been passed.

3. In this Act, unless there be something repugnant in the subject or context,—

Definitions.

"Estate" means any land or share in land subject to the payment to Government of land revenue, and included under one entry in the general register of revenue-paying lands prepared and maintained by the Collector of a district under the Land Registration Act, 1876, or of the law for the time being in force; or in respect of which a separate account may, in pursuance of section 22, have been opened.

Act VII (B.C.) of 1868, section 1, with addition of the words in italics from the Tenancy Act.

"Proprietor" means a person owning, whether in trust or for his own benefit, an estate, or a part or share of an estate; and includes any person by whom any estate or independent tenure is held directly under Government.

"Revenue" includes every sum annually payable to Government by the proprietor of any estate or tenure in respect thereof.

"Tenure" includes all interests in land, whether rent-paying or lakhiraj (*not being estates as above defined nor raiyats' holdings as defined in the Bengal Tenancy Act, 1885*), and all fisheries, which, by the terms of the grants creating the same, or by the custom of the country, are transferable, whether such tenures are resumable or not, and whether the right of selling or bringing them to sale for an arrear of rent may or may not have been specially reserved by stipulation in any instrument.

"Independent tenure" means a tenure not being an estate the revenue of which is payable to Government.

"Incumbrance" means a charge upon or a claim against land arising out of a private contract.

"Jurisdiction" of a Collector means the district to which such Collector is appointed, or throughout which any officer vested with the powers of a Collector is authorized to exercise such powers.

"Board" means the Board of Revenue for the Lower Provinces of Bengal.

"Commissioner" means the Commissioner of Revenue of a Division.

"Collector" means the Collector of a district, and includes any officer invested by the Lieutenant-Governor with the powers of a Collector under this Act.

"Recorded Proprietor" means any proprietor of an estate or share of an estate whose name and the character and extent of whose interest in the estate are registered in the General Register of revenue-paying lands prepared and maintained by the Collector of a district under the Land Registration Act, 1876, or any similar law for the time being in force.

"Section" means a section of this Act.

"Official year" means the year commencing on the first day of April.

4. Every estate shall, for the purposes of this

Collectorate to include all estates borne on its roll.

Act, be deemed to be within the Collectorate of the Collector upon whose General Register the revenue thereof may be borne, although the whole or any portion of the lands comprised in such estate may be without the local limits of his jurisdiction: but all lands and tenures shall be deemed to be within the jurisdiction within the local limits of which they may be situate, although the estate of which they form a part may, under the provisions of this section, be deemed to be within the Collectorate of any other Collector.

The words in italics are from the Tenancy Act, and the rest from Act VII (B.C.) of 1868, section 1.

Ibid.

Ibid.

New, with reference to Act VII (B.C.) of 1868, section 11.

Ibid.

New.

Act VII (B.C.) of 1876, section 3 (D).

New.

Act VII (B.C.) of 1868, section 10.

PART II.

OF PROCEEDINGS BEFORE SALE.

5. If the whole or a portion of an instalment of revenue due for any month of the era according to which the settlement and

Arrear of revenue defined.

Act XI of 1869, section 2.

Act XI of 1859, section 3.

Act VII (P.C.) of 1868, section 11, first part, as amended by Act II (B.C.) of 1871 (slightly altered).

Act XI of 1859, section 5.
Act VII (B.C.) of 1868, section 11, as amended by Act II (B.C.) of 1871.

Act XI of 1859, section 6, as modified by Act VII (B.C.) of 1868, section 3.*

list of instalments of any estate have been regulated be unpaid on the first of the following month of such era, the sum so remaining unpaid shall be considered an arrear of revenue.

6. The Board shall determine upon what dates all arrears of revenue and all demands which, by the Regulations and Acts in force, are directed to be realized in the same manner as arrears of revenue, shall be paid up in each district under their jurisdiction, in default of which payment the estates in arrear in those districts, except as hereinafter provided, shall be sold at public auction to the highest bidder. And the said Board shall give notice of the dates so fixed in the *Calcutta Gazette*, and shall direct corresponding publication to be made, as far as regards each district, in the language of that district, in the Office of the Collector, in the Courts of the Judge, Magistrate, and Munsifs, and at every police station of that district; and the dates so fixed shall not be changed except by the said Board by advertisement and notification in the manner above described, to be issued at least three months before the close of the official year preceding that in which the new date is, or dates are, to take effect.

7. Whenever any revenue payable to Government in respect of any independent tenure shall be in arrear after the latest day of payment fixed in the manner prescribed in section 6, the Collector to whom such revenue is payable may cause such tenure to be sold in the manner and subject to the provisions hereinafter contained for the sale of estates for the recovery of arrears of revenue.

8. No estate, and no share or interest in any estate, and no independent tenure, shall be sold for the recovery of arrears accruing while under attachment by order of any judicial authority, or managed by the Collector in accordance with such order, otherwise than after a notification in the language of the district specifying the nature and amount of the arrear or demand, and the latest date on which payment thereof shall be received, shall have been affixed for a period of not less than fifteen clear days preceding the date fixed for payment according to section 6, in the office of the Collector, in the Court of the Judge, and in the Munsif's Court and police-station within whose jurisdiction the estate or share of an estate to which the notification relates is situated; or if the estate or share of an estate be situated within the jurisdiction of more than one Munsif's Court or police-station, in some one or more of such Courts or stations; and also at the *kachahri* of the proprietor of the estate or share of an estate, or at some conspicuous place upon the estate or share of an estate; *due service* to be certified to the Collector by the officer in charge of every Court, office or police-station in which the notification mentioned in this section is affixed, and by the officer charged with the service thereof on the estate.

9. The Collector shall, as soon as possible after the latest day of payment fixed in the manner prescribed in section 6, issue notifications in the language of the district, to be affixed in his own office and in the

Court of the Judge of the district, specifying the estates or shares of estates and independent tenures which will be sold as aforesaid, and the day on which the sale of the same will commence, which day shall not be less than thirty clear days from the date of affixing the notification in the office of the Collector. And if the revenue of any estate or share of an estate or independent tenure to be sold exceed the sum of five hundred rupees, a notification of the sale of such estate or share of an estate or independent tenure shall be published in the *Calcutta Gazette*. Except as hereinafter provided, all estates or shares of estates or independent tenures so specified shall, on the day notified for sale, or on the day or days following, be put up to public auction by and in the presence of the Collector, and shall be sold to the highest bidder.

10. Whenever an estate or share of an estate or independent tenure is notified for sale as provided by section

Notice to raiyats.

9, the Collector shall affix a proclamation in the language of the district in his own office, and as soon thereafter as may be in the Sub-divisional Offices, Munsifs' Courts and police-stations within the jurisdiction of which the estate or share of an estate or tenure or any part of it is situated, and also at the kachahri of the proprietor of the estate or share of an estate or tenure, or at some conspicuous place upon the estate or share of an estate, forbidding the raiyats and under-tenants to pay to the defaulting proprietor any rent which has fallen due after the day fixed for the last day of payment, on pain of not being entitled to credit in their accounts with the purchaser for any sums so paid.

11. If at any time between the latest day of payment fixed in the manner prescribed in section 6, and sunset of the sixth day before the day of sale as fixed under the provisions of section 9, any payment or tender of payment is made to the Collector of a sum of money equivalent to the arrear of revenue due in respect of any estate or independent tenure, together with an additional sum, being one-fourth of the amount of such arrear, the Collector shall accept such payment or tender, and the estate or independent tenure for which such payment or tender is made shall be exempted from sale.

Provided that, if the arrear shall exceed five thousand rupees, the additional sum aforesaid shall be one-eighth, and if the arrear shall exceed ten thousand rupees, the additional sum aforesaid shall be one-sixteenth of the said arrear.

12. Exemption from sale shall not ordinarily be granted on account of any payment made after the period indicated in the foregoing section; but, when he

considers the adoption of such a course necessary, it shall be lawful for the Collector, after duly recording his reasons therefor, to accept payment of the amount due as an arrear of revenue in respect of such estate or tenure, together with the additional sum mentioned in the last preceding section, on any date up to and including the day of sale, and the estate or tenure for which such payment is made shall thereupon be exempted from sale.

13. It shall be lawful for the Lieutenant-Governor of Bengal, by an order published in the *Calcutta Gazette*, to empower all Collectors in any district in such order mentioned, if they shall think fit, to cause such notices as shall be in such order specified, to be served upon any proprietors before proceeding

Power to cause notices to be served of arrears or demands.

Act XI of 1859, section 7, as modified by Act VII (B.C.) of 1868, section 7.

New; see letter of Government, No. 3674-1290L.R., dated 25th September 1889, paragraph 12.

New; see Government letter as above.

Act VII (B.C.) of 1868, section 6, as modified by Act VII (B.C.) of 1880.

New ; Government letter as above, para, raph 12.

Act XI of 1859, section 15.

under the provisions of this Act, to realize from such proprietors any arrears of revenue which may be due from them, and the costs of serving any such notices as shall be served under the powers conferred by any such order, not exceeding such sums as shall in such order be specified, shall be added to any arrears of revenue which may be due from such proprietors, and shall be recoverable as if the same were a portion of such arrears of revenue; and every such order may from time to time be altered, varied or revoked by any other order of the said Lieutenant-Governor to be from time to time in like manner published.

14. *Any person interested in an estate or share of an estate or independent tenure, whether as proprietor, mortgagee, judgment-creditor, tenure-holder or otherwise, may apply to the Collector to register his name and address. Such application shall state the name and number on the Collector's rent-roll of the estate in respect of which it is made, and shall be accompanied by the fee prescribed in the third schedule annexed to this Act. On receipt of such application and fee the Collector shall register the name and address of the applicant, and shall give him notice by registered letter of any default which may thereafter occur in payment of the revenue of such estate.*

Provided that no sale held under this Act shall be void or voidable by reason of the person addressed not receiving such letter, if it be proved that the said letter has been duly registered and posted.

PART III.

OF PROTECTION AND EXEMPTION FROM SALE.

A.—Deposits.

15. If any recorded proprietor of an estate, or share of an estate, or independent tenure, shall deposit with the Collector money or Government securities, endorsed and made payable to the order of the Collector, and shall sign an agreement pledging the same to Government by way of security for the revenue of the entire estate, share of an estate, or independent tenure, and authorizing the Collector to apply to the payment of any arrear of revenue that may become due from that estate, share of an estate, or independent tenure, the whole or any portion of the said money or securities that may be necessary for that purpose, then in the case of any arrear of revenue due from the said estate, share of an estate, or independent tenure, not being paid before sunset of the latest day of payment fixed under section 6, the Collector shall apply to the payment of such arrear the said money or securities, or such part thereof, or of any interest due on the said securities as may be necessary; and for this purpose the Collector shall first apply any money that may be in his hands, and any interest that may be due upon such securities, and may then sell and transfer the securities, for any balance that may remain.

And so long as any money or securities as aforesaid, sufficient to cover any arrear that may fall due, shall remain and be available as aforesaid, the estate, share of an estate, or independent tenure, for the protection of which the said deposit was made, shall be exempted from sale for arrears

of revenue. All money and securities so deposited shall be exempt from attachment otherwise than in execution of a decree of a Civil Court.

Provided that it shall be competent to the person making a deposit under the provision of the last preceding section, or his representative or assignee, at any time to withdraw the deposit and to revoke the pledge of the same.

16. Whenever any recorded proprietor of an estate, share of, an estate or independent tenure shall have paid revenue in respect of such estate, share of an estate or independent tenure in excess of the amount proportionate to his own interest therein, he may, within fifteen days of such payment being made, move the Collector by written application to make a

Recovery of excess payments by certificate process. certificate as provided by the law for the time being in force for the recovery of public demands, specifying the amount of revenue which has been paid by such proprietor on account of the recorded share or interest of any other proprietor in the estate. Such application shall be verified by the applicant in accordance with the provisions of the Code of Civil Procedure for the verification of plaints, and shall bear a court-fee stamp of the same amount as is payable under the Court-fees Act for the time being in force in respect of a plaint for the recovery of a sum of money equal to that stated in such application.

And the Collector may, if he thinks fit, make such certificate, and such certificate shall have the same effect as a certificate made for the recovery of a public demand; and the same notices shall be issued and the same proceedings taken thereon as in the case of such certificate.

17. The Collector shall, at any time before sunset of the latest day of payment, determined according to section 6, receive as

Deposits receivable from persons not proprietors.

a deposit from any person not being a proprietor of an estate, or share of an estate, or independent tenure, in arrear, the amount of the arrear of revenue due, to be credited in payment of the arrear at sunset as aforesaid, unless before that time the arrear shall have been paid by a defaulting proprietor of the estate. And in case the person so depositing, whose money shall have been credited in the manner aforesaid, shall be a party in a suit pending before a Court of Justice for the possession of the estate or share or tenure from which the arrear is due, or any part thereof, it shall be competent to the said Court to order the said person to be put into temporary possession of the said estate or share or tenure, or part thereof, subject to the rules in force for taking security in the cases of parties in civil suits. And if the person so depositing, whose money shall have been credited as aforesaid, shall prove before a competent Civil Court that the deposit was made in order to protect an interest of the said person, which would have been endangered or damaged by the sale, or which he believed in good faith would have been endangered or damaged by the sale, he shall be entitled to recover the amount of the deposit, with or without interest as the Court may determine, from the defaulting proprietor. And if the person so depositing, whose money shall have been credited as aforesaid, shall prove before such a Court that the deposit was necessary in order to protect any line he had on the estate or share or part thereof,

Act XI of 1859, section 16.

Ibid; section 2.

New—see Government letter as above, paragraph 14; also Act IX (B.C.) of 1890, section 49.

Act XI of 1859, section 8.

1864 section

Act XI of 1859, section 11.

Act VII (B. C.) of 1876, section 76.

Act XI of 1859, portions of sections 10 and 11, and Act VII (B. C.) of 1876, portion of section 76, made into one section to avoid repetition.

or tenure, the amount so credited shall be added to the amount of the original lien.

18. No claim to abatement or remission of revenue, unless the same shall have been allowed by

the authority of Government, and no private demand or cause of action whatever,

held or supposed to be held by any defaulter against Government, shall bar or render void or voidable a sale under this Act; nor shall the plea that money belonging to the defaulter and sufficient to pay the arrear of revenue due, was in the Collector's hands, bar or render void or voidable a sale under this Act, unless such money stand in the defaulter's name alone and without dispute, and unless, after application in due time made by the defaulter, or after the written agreement provided for in section 15, the Collector shall have neglected, or refused on insufficient grounds, to transfer it in payment of the arrear of revenue due.

B.—Separate Accounts.

19. When a recorded proprietor of a joint estate, held in common tenancy, desires to pay

his share of the Government revenue separately, he may submit to the Collector a written application to that effect. The application must contain a specification of the share held in the estate by the applicant.

20. When a recorded proprietor of a joint estate, whose share consists

of a specific portion of the land of the estate, desires to pay his share of the revenue

separately, he may submit to the Collector a written application to that effect. The application must contain a specification of the land comprised in his share, and of the boundaries and extent thereof, together with a statement of the amount of revenue heretofore paid on account of it.

21. When a recorded proprietor of a joint estate, who is recorded as proprietor of an undivided interest held in common tenancy in any specific portion of the land of the estate, but not extending

over the whole estate, desires to pay separately the share of the revenue which is due in respect of such interest, he may submit to the Collector a written application to that effect. The application must contain a specification of the land in which he holds such undivided interest, and of the boundaries and extent thereof, together with a statement of the amount of revenue heretofore paid on account thereof.

22. On the receipt of an application under section 19, 20 or 21, the Collector shall cause a copy thereof to be published in the manner prescribed for publication of notifications in section 8.

In the event of no objection being urged by any recorded proprietor, within six weeks from the date of publication of the application, the Collector shall open a separate account with the applicant, and shall credit separately to his share all payments made by him on account of it.

Procedure in opening separate accounts.

23. The date on which the Collector records his sanction to the opening of a separate account under section 22 shall be held to be that from which the separate liabilities of the share of the applicant commence.

Date of commencement of separate liability.

Act XI of 1859, last sentence of sections 10 and 11, and Act VII (B.C.) of 1876, last sentence of section 70, made into one section to avoid repetition.

24. No separate account shall be opened under section 22, in respect of the share of any applicant otherwise than for a share corresponding with the character and extent of interest in the estate in respect of which such applicant is recorded as proprietor; nor shall any separate account be opened in respect of any share the revenue of which is less than one rupee.

No separate account to be opened for incorrect share or for share bearing revenue of less than one rupee.

Act VII (B.C.) of 1876, section 69 (wording modified for incorporation into this Act).

See.

25. If on the publication of the applications prescribed in section 22 any recorded proprietor of the estate, whether the same be held in common tenancy or otherwise, object—

If objection be made, parties to be referred to the Civil Court.

Act XI of 1859, section 12 and Act VII (B.C.) of 1876, section 74.

(a) that the applicant has no right to the share claimed by him, or that his interest in the estate is less or other than that claimed by him, or

(b) (when the application is in respect of a specific portion of the land of an estate, or in respect of an undivided interest held in common tenancy in any specific portion of the land of an estate) that the amount of revenue stated by the applicant to have been heretofore paid on account of such portion of land or on account of the applicant's undivided interest therein, is not the amount which has been recognized by the other sharers as the revenue thereof.

the Collector shall refer the parties to the Civil Court, and shall suspend proceedings until the question at issue is judicially determined.

26. Whenever any share in respect of which a separate account has been opened by the Collector under section 22

Application to close a separate account.

shall no longer correspond with the character and extent of interest held in the estate by any proprietor or jointly by one or more proprietors, any recorded proprietor of any interest in the estate for a share of which such separate account is open may submit to the Collector a written application setting forth the circumstances under which such share no longer corresponds with the character and extent of interest held as aforesaid, and specifying the manner in which such share has been broken up and distributed among the proprietors of the estate, or the manner in which the said character and extent of interest have been changed, and praying that the separate account standing open in respect of such share may be closed; and if he so desire, that another separate account be opened in respect of any other share or shares which were wholly or partly included in the share in respect of which the previous separate account was open.

Act VII (B.C.) of 1876, section 72.

Illustration.

In a certain estate separate accounts have been opened under section 19 for the 4 annas share of A, and also for the 5 annas share of B, the accounts of the remaining 7 annas share being kept jointly in the names of the remaining proprietors C, D and E.

In course of time X has inherited A's 4 annas share and also C's interest in the 7 annas share which amounted to 3 annas; X has also acquired by purchase 2 annas out of B's 5 annas share, so that the interests in the estate are now distributed as follows:—

X	...	...	...	...	9 annas.
B	...	...	...	...	3 "
D and E	...	...	...	...	4 "

X, if a recorded proprietor of the estate, may apply to the Collector to close the separate account which is open in respect of A's 4 annas share, and also the separate account which is open in respect of B's 5 annas share, as neither of these shares corresponds with the extent of interest held by any one proprietor or held jointly by two or more proprietors in the estate.

X may, in the same application, also apply for the opening of a separate account in respect of the 9 annas share which he now holds. Any of the other proprietors may also make a similar application.

Act VII (B.C.) of 1876, section 73, and part of 74.

27. (a) On receipt of such application the Collector shall cause a copy of the same to be published in the manner provided in section 8, and if within six weeks of the date of such publication no objection is made by any other recorded proprietor of the estate, the Collector shall close the separate account which then stands open, and shall open a separate account with the applicant as desired by him under section 19, 20 or 21, as the case may be.

(b) If any recorded proprietor object that the share in respect of which any separate account is open as aforesaid has not been broken up and does still correspond with the character and extent of interest held by any proprietor or proprietors, the Collector shall proceed as provided in section 25.

New, based on Act VII (B.C.) of 1876, section 28.

28. Whenever it shall come to the notice of the Collector that a share for which a separate account has been opened under section 22 does not correspond with the character and extent of interest held in the estate by the proprietor with whom the separate account was opened, the Collector shall issue a notice to the said proprietor informing him of his intention to close the said separate account, and requiring him to state in a written application any objection he may have thereto. If within six weeks from the service of the said notice the said proprietor shall not make such application, or if the objections made by him are not in the opinion of the Collector good and sufficient, the Collector shall record a proceeding stating his reasons for believing the said separate account to be incorrect, and shall order that the said separate account be closed, and it shall be closed accordingly.

Act XI of 1869, section 12.

29. Whenever the Collector shall have ordered a separate account or accounts to be kept for one or more shares, if the estate shall become liable to sale for arrears of revenue, the Collector shall, in the first place, put up to sale only that share or those shares of the estate from which, according to the separate accounts, an arrear of revenue may be due. In all such cases notice of the intention of excluding the share or shares from which no arrear is due, shall be given in the advertisement of sale prescribed in section 9. The share or shares sold, together with the share or shares excluded from the sale, shall continue to constitute one integral estate, the share or shares

sold being charged with the separate portion or the aggregate of the several separate portions of revenue assigned thereto.

30. If in any case of a sale held according to the provisions of the last preceding section, the highest offer for the share exposed to sale shall not equal the amount of arrear due thereupon to the date of sale, the Collector shall stop the sale, and shall declare that the entire estate will be put up to sale for arrears of revenue at a future date, unless the other recorded sharer or sharers, or one or more of them, shall within ten days purchase the share in arrear by paying to Government the whole arrear due from such share. If such purchase be completed, the Collector shall give such certificate and delivery of possession as are provided for in sections 50 and 51 of this Act, to the purchaser or purchasers, who shall have the same rights as if the share had been purchased by him or them at the sale. If no such purchase be made within ten days as aforesaid, the entire estate shall be sold, after notification for such period and publication in such manner as is prescribed in section 9.

Act XI of 1859, section 14.

C—Estates under Court of Wards.

31. Except as hereinafter provided by section 36, every estate, and subject to the provisions of section 29, every share or part of an estate for which a separate account has been opened under section 22 shall be exempt from sale for arrears of revenue which have accrued whilst such estate, share or part has been under the charge of the Court of Wards in accordance with the provisions of Bengal Act IX of 1879:

Act IX (B.C.) of 1879, section 23 as amended by Act III (B.C.) of 1881, section 4, clause 1.

Provided that all such arrears of revenue shall be a first charge upon the sale proceeds of any estate, share or part which may be sold for any other cause than such arrears of revenue.

32. If at the time when such estate, share or part ceases to be under the charge of the Court of Wards an arrear of revenue is due on account thereof, the Collector may attach such estate, share or part and collect the rent, cesses and other demands due, and all arrears thereof, managing such estate, share or part either directly or through a manager, or by farming it for a period not exceeding five years, as he may think fit:

Ibid.

clause 2.

Provided that when such estate, share or part has been attached under the provisions of this section, the proceeds shall be paid to the Collector, and the Collector, after deducting the claims of Government for revenue and other public demands, together with any interest which has accrued upon such public demands other than revenue, and the charges of management due up to the date of making such deduction, shall release such estate, share or part from attachment and shall pay any balance of the proceeds still remaining in his hands to the proprietor of such estate, share or part, or to his duly constituted agent, and shall furnish such proprietor or agent with an account of the receipts and expenditure extending over the time when such estate, share or part was under attachment.

Act IX (B.C.) of 1879, section 23, as amended by Act III (B.C.) of 1881, section 24.

33. No estate the sole property of a minor or of two or more minors, and descended to him or them by the regular course of inheritance, or by virtue of the will of, or some settlement made by, some deceased owner thereof, shall be sold for arrears of revenue accruing subsequently to his or their succession to the same until such minor or one of such minors has completed his age of twenty-one years, but all arrears of revenue shall be the first charge upon the proceeds of such estate if the estate is sold for any other cause during such minority.

The Collector may on an arrear accruing on any such estate attach the estate and collect the rents and all arrears of rent due, managing the estate either directly or through a manager or by farming it as he may think fit for a period not exceeding ten years, nor extending beyond the time when such minor or one of such minors completes his age of twenty-one years.

34. The exemption from sale for arrears of revenue given by the last preceding section shall only apply to cases in which a written notice of the fact that the estate is the sole property of one or more minors and entitled to such exemption has been served on the Collector before the sale.

35. When an estate has been farmed under the provisions of section 33, the proceeds of such farm shall be paid to the Collector, and the Collector, after deducting the amount of the claims of Government for revenue and other public demands and the charges of management, shall either pay the proceeds to the proprietor or to his duly constituted agent or shall dispose of them in any of the modes mentioned in section 49 or section 50 of Bengal Act IX of 1879. Whenever such estate shall be released from attachment the Collector shall furnish such proprietor or his duly constituted agent with an account of the receipts and expenditure extending over the time when such estate was under attachment.

36. Notwithstanding anything in clause 5, section 8, Regulation I of 1793, or in sections 31 and 32 of this Act contained, any estate, share, or part of an estate on which an arrear of revenue has accrued while under the charge of the Court of Wards, may at any time be sold under the provisions of this Act, if the Court of Wards has certified in writing that the interests of the ward require that such estate, share, or part be so sold and has state in such writing the reasons upon which it has arrived at such conclusion.

D.—Attached estates.

37. No estate held under attachment by the revenue authorities otherwise than by order of a judicial authority, shall be liable to sale for arrears accruing whilst it was so held under attachment.

38. No estate held under attachment or managed by a Revenue Officer, in pursuance of an order of a judicial authority, shall be liable to sale for the recovery of arrears

Act IX (B.C.) of 1879, section 25.

Ibid, section 26 adding last sentence of section 32 above.

Ibid, section 23A as amended by Act III (B.C.) of 1881, section 4.

Act XI of 1859, section 17, penultimate sentence.

Ibid, last sentence.

of revenue accruing during the period of such attachment or management until after the end of the year in which such arrears accrued.

Explanation.—The attachment of an estate under the provisions of section 10 of the Public Demands Recovery Act is not an attachment within the meaning of this section, and does not exempt the estate so attached from sale for arrears of revenue.

PART IV.

OF SALES.

39. Sales shall ordinarily be held by the Collector in the Collector's Office at the Sadr Station of the District: provided, however, that it shall be competent to the Board to prescribe a place for holding sales other than such Office whenever they shall consider it beneficial to the parties concerned.

40. In case the Collector shall be unable from sickness, from the occurrence of a holiday, or from any other cause, to commence the sale on the day of sale fixed as aforesaid; or if, having commenced it, he be unable, from any cause, to complete it; he shall be competent to adjourn it to the next day following, not being Sunday or other close holiday, recording his reasons for such adjournment, forwarding a copy of such record to the Commissioner of Revenue, and announcing the adjournment by a written proclamation stuck up in his kaachabri; and so on, from day to day, until he shall be able to commence upon, or to complete the sale; but, with the exception of adjournments so made, recorded, and reported, each sale shall invariably be made on the day of sale fixed in the manner aforesaid.

41. On the day of sale fixed according to section 9, the notifications affixed in the Collector's Office under the provisions of that section together with the return of publication of notice in the Judge's Court and the returns of service of all and any notices that may have been issued under any of the provisions of this Act, shall be laid before the Collector, who shall satisfy himself by personal inspection of the same that all notifications and notices previous to sale by this Act required have been duly issued for the period at the places and in the manner by this Act prescribed, and on being so satisfied, he shall duly attest in a proceeding that all the requirements of this Act in respect of the publication of notifications and notices have been complied with, and such attestation shall be kept with and form part of the record of sale proceedings.

If the Collector be not satisfied that the prescribed notifications and notices have been duly issued and served in respect to any estate notified for sale under section 9, he shall postpone the sale and issue fresh notifications for the period at the places and in the manner by this Act prescribed.

42. Upon completion of the attestation prescribed in the last preceding section, the sales shall proceed in regular order; the estate to be sold bearing the lowest number on the rent-roll of the Collector's office of the district being put up first, and so on, in regular sequence; and it shall not be lawful for the Collector to put up any estate out of its regular order by number, except where it may be necessary to do so on default of deposit, as provided in section 43.

New.

Act XI of 1859, section 19.

Ibid, section 20.

New.

(To meet case of *Lala Mohar Lal versus Secretary of State and others*, XI, I. L. R., Cal., p. 200.)

Act XI of 1859, section 21.

Act XI of 1869, section 22.

Ibid., section 23.*Ibid.*, section 24.*Ibid.*, section 2.
section 25 as amended by Act VII (B.C.) of 1868,

43. The person who shall be declared the purchaser of an estate or share of an estate at any such public sale as aforesaid, shall be required to deposit immediately or as soon after the conclusion of the sale of the estate or share as the Collector may think necessary, either in cash, currency notes, or Government securities to be valued at the market rate of the day, duly endorsed, twenty-five per cent. on the amount of his bid; and in default of such deposit, the estate or share shall forthwith be put up again and sold.

44. The full amount of purchase money shall be made good by the purchaser before sunset of the thirtieth day from that on which the sale of the estate or share of an estate bought by him took place, reckoning that day as one of the thirty; or if the thirtieth day be a Sunday or other close holiday, then on the first office day after the thirtieth: and in default of payment within the prescribed period as aforesaid, the deposit shall be forfeited to Government, the estate or share shall be resold, and the defaulting purchaser shall forfeit all claim to the estate or share, or to any part of the sum for which it may subsequently be sold. And in the event of the proceeds of the sale which may be eventually consummated being less than the price bid by the defaulting bidder aforesaid, the Collector shall proceed to levy the difference from him under the provisions of the Public Demands Recovery Act, and such difference shall be taken and considered to be a part of the purchase money and shall be dealt with in the manner prescribed in section 53 for the disposal thereof.

45. When default is made in the payment of purchase-money a notification of the intended re-sale shall be published for the period and in the manner prescribed in section 9, but such notification shall not be published until the expiration of three clear days after the day on which the default shall have occurred; and if the payment or tender of payment of the arrear on account of which the estate or share was first sold, and of any arrear which may have subsequently become due, shall be made by or on behalf of the proprietor of the estate or share before sunset of the third day, the issue of the notification of re-sale shall be stayed. The rules contained in sections 43 and 44 shall be applicable to every such re-sale; provided that, if default of payment of purchase-money shall occur more than once, the amount to be recovered from the defaulting bidders shall be the difference between the highest bid and the proceeds of the sale eventually consummated, which amount may be levied in manner aforesaid from any of the defaulting bidders to the extent of the amount by which his bid exceeds the amount realized.

46. It shall be lawful for the Commissioner to receive from any person injuriously affected thereby an appeal against any sale made under this Act so that such appeal be preferred to such Commissioner on or before the sixtieth day from the day of sale, reckoning as in section 44, or be presented to the Collector for transmission to the Commissioner on or before the forty-fifth day from the day of sale.

reckoning as aforesaid, and not otherwise; and the Commissioner shall be competent, in every case of appeal so preferred, to annul any sale of an estate or share of an estate or independent tenure made under this Act *for the following reasons, namely:—*

(a) *when the appellant is the proprietor, that the sale has not been conducted in strict accordance with all the provisions of this Act;*

(b) *when the appellant is not the proprietor, that the appellant has sustained substantial injury by reason of the sale not having been conducted in strict accordance with all the provisions of this Act;*

The Commissioner shall also (in cases where the appeal has been made by the proprietor) award to the purchaser a payment from the proprietor of compensation for his loss, if the sale shall have been occasioned by neglect of the proprietor, such compensation not to exceed interest at *twelve per centum per annum* on the amount of deposit or balance of purchase-money during the period of its being retained in the Collector's Office: and the order of the Commissioner shall in such cases be final.

47. It shall be competent to the Commissioner on the ground of hardship or injustice *having been caused to the appellant*, to suspend the passing of final orders in any case of appeal from a sale, and upon the defaulting proprietor's depositing in the Collector's office such a sum of money as is sufficient to satisfy the claim of the auction purchaser for interest on the purchase-money, together with a sum equal to that (if any) which may have been paid by the auction purchaser in satisfaction of the demands of Government against the estate, the case may be reported to the Board, who, if they see cause, may recommend to the local Government to annul the sale; and the local Government in any such case may annul the sale and cause the estate or share of an estate to be restored to the proprietor on such conditions as may appear equitable and proper.

48. The annulment by a Commissioner or by Government of a sale made under this Act shall be publicly notified by the Collector or other Officer as aforesaid, in the same manner as the becoming final and conclusive of sales is required to be notified by section 50; and the amount of deposit and balance of purchase-money shall be forthwith returned to the purchaser with interest thereon at *twelve per centum per annum*, which shall be paid by the Government, unless the proprietor shall have become liable for the same under the provisions of section 46 or 47.

49. All sales of which the purchase-money has been paid up as prescribed in section 44, and against which no appeal shall have been preferred, shall be final and conclusive at noon of the sixtieth day from the day of sale, reckoning the said day of sale as the first of the said sixty days. And sales against which an appeal may have been preferred and dismissed by the Commissioner shall be final and conclusive from the date of such dismissal, if more than sixty days from the day of sale, or if less, then at noon of the sixtieth day as above provided.

New.

The words in italics in accordance with Government above quoted, paragraph 15.

Act XI of 1859, section 26.

Board's circular No. 2 of April 1888.

Act XI of 1859, section 32.

See Government letter above quoted paragraph 15.

Act XI of 1859, section 27 as amended by Act VII (B.C.) 1868, section 4.

Act XI of 1859, section 23 modified in accordance with sections 316, 318, and 319, Civil Procedure Code, and Board's letter to Government, No. 873A, dated 9th November 1889.

Act XI of 1859, section 29, and same references as for section 50 above.

Act VII (B.C.) of 1868, section 8, words in italics new.

Act XI of 1859, section 31.
Act VII (B.C.) of 1868, section 11.

50. Immediately upon a sale becoming final

Certificate of sales.

and conclusive, the purchaser shall be entitled on application to the Collector to receive a certificate of title in the form prescribed in the second schedule annexed to this Act, and the said certificate shall be deemed in any Court of Justice sufficient evidence of the title to the estate or share of an estate sold being vested in the person or persons named from the date specified therein; on such certificate being granted the Collector shall also notify such transfer by written proclamation in his own Office, and in the Courts of the Munsifs and police-stations within whose jurisdictions any part of the estate or share or independent tenure sold shall be situated.

51. When a certificate of title has been granted under section 50, the

Delivery of possession.

Collector shall order delivery of possession of the estate or share or independent tenure purchased to be made by proclaiming to the occupants of the property by beat of drum or in such other mode as may be customary, at some convenient place or places that the ownership of the estate has been transferred from the former proprietor or proprietors to the purchaser, and by affixing a copy of the certificate at the Mal kachahri or in some conspicuous place on the estate or share of an estate or independent tenure purchased; and, if need be, by removing any person who refuses to vacate the same, and it shall not be necessary for the Collector to order delivery of possession to be made in any other way than is provided in this section.

52. With every certificate of title which may

Certificate to be conclusive evidence of regularity in procedure.

be given to any purchaser under the provisions of section 50 there shall also be delivered to him free of cost a certified copy of the attestation made under the provisions of section 41, and such certificate and attestation shall be conclusive evidence, in favour of such purchaser and of every person claiming under him, that all notifications and notices in or by this Act, required to be served or posted, have been duly served and posted, for the period, at the places, and in the manner, by this Act required, and that the sale to which they refer was a sale under this Act; and the title of any person who may have obtained any such certificate and attestation shall not be impeached or affected by reason of any omission, informality, or irregularity as regards the serving or posting of any notification or notice in the proceedings of the sale at which such person may have purchased.

53. The Collector shall apply the purchase

Disposal of purchase money.

money first to the liquidation of all arrears due upon the latest day of payment from the estate or share of an estate or independent tenure sold; and secondly to the liquidation of all outstanding demands debited to the estate or share of an estate in the public accounts of the District; holding the residue, if any, in deposit on account of the late recorded proprietor or proprietors of the estate or share of an estate or independent tenure sold or their heirs or representatives to be paid to his or their receipt on demand in the manner following: to wit, in shares proportioned to their recorded interest in the estate or share of an estate or independent tenure sold, if such distinction of shares were recorded, or if not, then as an aggregate sum to the whole body of

proprietors upon their joint receipt. And if before payment to the late proprietor or proprietors of any surplus that may remain of the purchase money, the same be claimed by any creditor in satisfaction of a debt, such surplus shall not be payable to such claimant, nor shall it be withheld from the proprietor or proprietors except under precept of a Civil Court.

Provided that the residue, if any, of the purchase money of an independent tenure shall be held in deposit on account of the late holder of the tenure and not on account of the proprietor or proprietors of the estate.

54. *When any application for payment of the residue of the purchase money of an estate, share of an estate or independent tenure, shall be made to the Collector under the last preceding section by any person other than the late recorded proprietor or proprietors, the Collector may, if he shall think fit, publish a notification in the manner prescribed in section 8, requiring all persons who object to the payment of the said residue to the applicant to appear before the Collector on a day to be specified in such notification, not being less than thirty days from the date of publication thereof, and to present a written statement of their objections.*

55. *On the day fixed in the notification published under the last preceding section, or as soon thereafter as possible, the Collector shall consider the application and all objections that may be presented, and may also make such further enquiries as he shall think necessary.*

- (a) *If it shall appear to the Collector that the applicant is entitled to receive the said residue, he shall make an order to that effect.*
- (b) *If the applicant's claim be not proved to the satisfaction of the Collector; or*
- (c) *If it shall appear to him that the objector has reasonable grounds for objecting, he shall suspend proceedings and refer the parties to the Civil Court.*

Provided that no person who shall fail to present his objection to the Collector as prescribed in the last preceding section shall be entitled at any future time to claim payment of the said residue from the Collector.

PART V.

OF THE RIGHTS AND LIABILITIES OF PURCHASERS.

56. *The person who shall be declared the purchaser of an estate or share of an estate or independent tenure under section 43, shall be answerable for all instalments of revenue, and shall be entitled to collect rents from all tenants and raiyats, which may fall due after the latest day of payment aforesaid.*

57. *The purchaser of an entire estate in the permanently-settled districts of Bengal, Behar, and Orissa, sold under this Act for the recovery of arrears due on account of the same shall acquire the estate free from all incumbrances which may have been imposed upon it after the time of settlement;*

Act VII (B.C.) of 1888, section 11.

New.

New.

Act XI of 1859, section 30. Modified and added to.

Ibid., section 37

Act VII of 1868, section 12.

Act XI of 1859, section 37, last two clauses. Act VII (B.C.) of 1868, sections 13 and 14.

Ibid. section 52.

and shall be entitled to avoid and annul all tenures and forthwith to eject all tenants, with the following exceptions:

First. Istamrari or mukarrari tenures which have been held at a fixed rent from the time of the permanent settlement.

Second. Tenures existing at the time of permanent settlement, which have not been held at a fixed rent. Provided always that the rents of such tenures shall be liable to enhancement under any law for the time being in force for the enhancement of the rent of such tenures.

Third. Tenures created since the time of settlement, and farms for terms of years when such tenures and farms have been duly registered under the provisions of this Act.

Fourth. Leases of lands whereon dwelling-houses, manufactories, or other permanent buildings have been erected, or whereon gardens, plantations, tanks, wells, canals, places of worship, or burning or burying grounds have been made, or wherein mines have been sunk.

58. The purchaser of an independent tenure sold under the provisions of this Act shall acquire it free from all incumbrances which may have been imposed upon it after its creation, or after the time of settlement, whichever may have last occurred, and shall be entitled to avoid and annul all tenures, and forthwith to eject all tenants, with the following exceptions:—

(a.) The first, second and fourth classes specified in the last preceding section.

(b.) Tenures created or recognized by the settlement proceedings of any current temporary settlement, as tenures bearing a rent which is fixed for the period of such settlement.

59. And such a purchaser as is aforesaid shall be entitled to proceed in the manner prescribed by any law for the time being in force for the enhancement of the rent of any land coming within the fourth class of exceptions in section 57 contained, if he can prove the same to have been held at what was originally an unfair rent, and if the same shall not have been held at a fixed rent, equal to the rent of good arable land, for a term exceeding twelve years; but not otherwise.

Provided always that nothing in this Section contained shall be construed to entitle any such purchaser as aforesaid to eject any raiyat, having a right of occupancy at a fixed rent or at a rent assessable according to fixed rules under the laws in force, or to enhance the rent of any such raiyat otherwise than in the manner prescribed by such laws, or otherwise than as the former proprietor, irrespectively of all engagements made since the time of settlement, may have been entitled to do.

60. The purchaser of an estate in a district not permanently settled, sold under this Act for the recovery of arrears due on account of the same, shall acquire the estate free from all incumbrances which may have been imposed upon it after the time of settlement, and shall be entitled to avoid and annul all tenures which may have originated with the defaulter or his predecessors, being representatives or assignees of the original engager, as well as all agreements with raiyats or the like

settled or accredited by the first engager or his representatives, subsequently to the last settlement, as well as all tenures which the first engager may, under the conditions of his settlement, have been competent to set aside, alter, or renew, saving always and except leases of lands whereon dwelling-houses, manufactories, or other permanent buildings have been erected, or whereon gardens, plantations, tanks, wells, canals, places of worship, or burning or burying grounds have been made, or wherein mines have been sunk, which leases or engagements shall, so long as the land is duly appropriated to such purposes, and the stipulated rent paid, continue in force and effect. Provided that nothing contained in this section shall be construed to entitle any purchaser of land at a public sale for arrears of revenue to demand a higher rate of rent from any persons whose tenure or agreement may be annulled as aforesaid, than was demandable by the former proprietor, except in cases in which such persons may have held their lands under engagements, stipulating for a lower rate of rent than would have been justly demandable for the land, or in cases in which it may be proved that, according to the custom of the parganá, mauzah, or other local division, such persons are liable to be called upon for any new assessment, or other demand not interdicted by the regulations of Government.

61. Excepting proprietors with whom the Collector, under section 22, has opened separate accounts, any recorded or unrecorded proprietor or co-partner, who may purchase the estate of which he is proprietor or co-partner; or who by re-purchase or otherwise may recover possession of the said estate, after it has been sold for arrears under this Act; and likewise any purchaser of an estate sold for arrears or demands other than those accruing upon itself; shall by such purchase acquire the estate subject to all its incumbrances existing at the time of sale and shall not acquire any rights in respect to under-tenants or raiyats, which were not possessed by the previous proprietor at the time of the sale of the said estate.

62. When a share or shares of an estate may be sold under the provisions of section 29 or section 30, whether the share or shares so sold be those for which a separate account has been opened or the remaining portion of the estate for which no separate account has been opened, the purchaser shall acquire the share or shares subject to all encumbrances, and shall not acquire any rights which were not possessed by the previous owner or owners.

63. Arrears of rent which on the latest day of payment may be due to the defaulter from his tenants or raiyats shall, in the event of a sale, be recoverable by him after the said latest day, by any process except distraint which might have been used by him for that purpose on or before the said latest day.

PART VI.—OF THE PROTECTION OF TENURES.

64. The following rules for the registration of tenures and of farms for terms of years shall be observed.

Act XI of 1859, section 53.

Ibid., section 54.

High Court ruling in the case of Monohur Mookerjee versus Hurmohun Mookerjee, 1, W. R., p. 27.

Act XI of 1859, section 55.

Ibid., section 39.

Act XI of 1859, section 39.

Ibid., section 40.

New.

Ibid., section 41.

New.

65. There shall be two sets of registers, one for common registry and one for special registry. Common registry shall secure tenures and farms against any auction purchaser at a sale for arrears of revenue except the Government. Special registry shall secure tenures and farms against any auction purchaser at a sale for arrears of revenue including the Government.

66. The holder of any tenure desirous of registering it shall apply by petition to the Collector of the District to which the estate belongs. The application shall state which description of registry is desired, and shall contain the following particulars so far as the same are ascertainable:—

1. The parganá or parganás in which the tenure is situated.

2. The nature of the tenure.

3. The name or names of the village or villages whereof the land is composed, or wherein it is situated.

4. The area of the land comprised in the tenure, with its boundaries in complete detail.

5. The amount of rent payable annually for the tenure, and whether the rent is fixed for a term of years or in perpetuity, and the duties, if any, required to be performed on account of it.

6. The date of the deed constituting the tenure, or, where no such deed exists, a statement of the evidence on which the applicant relies for proving that he and his predecessors in title (if any) have been in possession of the tenure for twelve years preceding the date of the application.

7. The name of the proprietor who created the tenure.

8. The name of the original holder of the tenure.

9. The name of the present possessor, and if he be not the original holder, the mode in which he succeeded to the tenure, whether by inheritance, gift, purchase, or otherwise, and whether he holds jointly or solely.

The deeds or other evidence referred to in the sixth particular above shall be submitted with the application for the consideration of the Collector.

Holders of such farms as are described in section 64 may apply in like manner for registry of the same. The application shall contain such of the foregoing particulars as are applicable to farms.

67. When the application is for common registry, the Collector shall serve a notice on the recorded proprietor or proprietors of the estate in which the tenure or farm is situated, or the authorized agent of such proprietor or proprietors, with a copy of the application annexed; and shall cause a notice, with a copy of the application annexed, to be affixed in his Office, and at the mal-kachahri of the estate in which the tenure or farm is situated, or in such other place or places as in the opinion of the Collector may be best suited to give publicity to the application, requiring the proprietor or any person interested, within thirty days from the issue of the said notice, to file any objections he may have to the registry of the tenure or farm, or to any statement contained in the application. If within the limited time no objection is made, the Collector shall consider the deeds or other evidence produced by the applicant, and if he shall be satisfied of their genuineness

and sufficiency, he shall register the tenure or farm. If within the limited time an objection is made by any recorded proprietor, or by any person interested not being a proprietor, the Collector shall examine the person so objecting or his authorized agent, and if it shall appear to him that such person has probable ground of objection, or if the deeds or other proofs produced by the applicant shall not appear genuine and sufficient, the Collector shall suspend proceedings, and shall refer the parties to the Civil Court; otherwise he shall grant the application. If the decision of the Civil Court be in favour of the applicant, the Collector, on the presentation of a copy of the final decree, shall register the tenure or farm.

68. When the application is for special registry the Collector shall serve and issue the notices prescribed in the last preceding Section.

Act XI of 1859, section 42.

If within the limited time no objection is made, the Collector shall cause any enquiry that he may deem necessary for the security of the Government revenue, to be made; and if he is satisfied that the Government revenue of the parent estate is sufficiently secured so far as it may be affected by the tenure or farm in question, he shall report the case to the Commissioner, who, if also satisfied on that point, shall direct the tenure or farm to be registered according to the application; otherwise the application shall be rejected.

If within the limited time any recorded proprietor or any person interested not being a proprietor object to the registry, the Collector shall examine the person so objecting or his authorized agent, and if it shall appear to him that such person has probable ground of objection, shall suspend proceedings, and shall refer the parties to the Civil Court; otherwise he shall proceed as if no objection had been made.

If the decision of the Civil Court be in favor of the applicant, the Collector, on the presentation of a copy of the final decree, shall proceed as above provided for cases in which no objection is made within the limited time.

69. Leases of lands of the description specified in the fourth exceptional class in Section 57 may be registered, at the option of the holders, in the manner and under the rules hereinbefore provided for the registry of tenures.

Ibid. section 43.

70. Tenures of the first and second exceptional classes in Section 67 may be registered, at the option of the holders; and when so registered shall be entered only in the special register.

Ibid. section 44.

Application for such registry shall contain the particulars specified in Section 66 so far as the same are ascertainable, and notices shall be served and issued in the manner prescribed in Section 67.

If within the limited time no objection is made by any recorded proprietor or by any person interested, not being a proprietor, the Collector shall make such enquiries as may be necessary to satisfy himself as to the validity of the tenure, and if so satisfied he shall report the case to the Commissioner who shall act according to the provisions of section 68; and the provisions of the said section shall be applicable to cases in which objections shall be made.

Act VII (B.C.) of 1876, section 96.

Act XI of 1859, section 46.

Ibid., section 50.

Ibid., section 51.

New.

See Government letter above quoted, paragraph 8.

Act XI of 1859, section 3

Provided always that nothing contained in his Section shall be understood as rendering registration necessary for the protection of *bona fide* tenures of the description herein referred to.

Proviso.

71. On receiving from the Deputy Collector appointed under Bengal Act VII of 1876 a notice in accordance with section 96 of that Act to the effect that a rent free tenure has been created in a estate under partition, the Collector shall, under section 68, report the case to the Commissioner who, if satisfied that the revenue of the parent estate is sufficiently secured, shall direct the tenure to be specially registered.

Registration of rent-free tenures in estates under partition.

72. The actual expenses of any measurement, survey, or local enquiry made under sections 68 and 70 of this Act, shall be borne by the person who applies for the registry of his tenure or farm and shall be realized under the provisions of the Public Demands Recovery Act; and such person may be required by the Collector from time to time to make such payments on this account as he may consider necessary.

Expenses of measurement, survey, or local enquiry.

73. Entry in the special register shall be an effectual protection of the tenure or farm so registered, unless in a suit instituted by Government in a Civil Court within the period allowed for suits for the recovery of the public revenue a decree be passed pronouncing the registration to have been obtained by fraud, to the injury of the Government revenue. Provided that a tenure or farm in the hands of a *bona fide* purchaser for value shall not be avoided by reason of such fraud. But the tenure or farm shall be liable to such amount of rent as would have been fair and equitable at the time of the special registry thereof, such amount to be fixed by the Collector.

Effect of entry in the special register.

74. Tenures and farms of the third exceptional class described in section 57 of this Act, for the special registration of which application shall be made within the prescribed time, and in respect of which the Collector shall have commenced the enquiry prescribed in section 68, shall, in case of the sale of the parent estate for arrears of revenue, be protected pending the duration of such enquiry, and shall be protected eventually by registration, if the final award of the Revenue Authorities upon such application be in favour of the claimant.

Protection of tenures pending enquiry in case of sale of parent estate for arrears of revenue.

75. Applications for common or special registry or for registration under this Part may be made at any time on payment of the fee prescribed in the third schedule annexed to this Act; provided that the deed or deeds constituting or creating the tenure for registry or registration of which application is made shall have been duly registered within the period, in the manner, and at the place prescribed by the Indian Registration Act 1877.

Period within which applications may be made.

PART VII.

OF THE POWERS OF CIVIL COURTS.

76. No sale for arrears of revenue or other demands realizable in the same manner as arrears of revenue are realizable, made

Jurisdiction of Civil Courts in suits to annul sales.

after the passing of this Act, shall be annulled by a Court of Justice, except upon the ground of its having been made contrary to the provisions of this Act, and then only on proof that the plaintiff has sustained substantial injury by reason of the irregularity complained of: and no such sale shall be annulled upon such ground, unless such ground shall have been declared and specified in an appeal made to the Commissioner under Section 46: and no suit to annul a sale made under this Act shall be received by any Court of Justice unless it shall be instituted within one year from the date of the sale becoming final and conclusive as provided in Section 49: and no person shall be entitled to contest the legality of a sale, after having received any portion of the purchase money.

Provided, however, that nothing in this Act contained shall be construed to debar any person considering himself wronged by any act or omission connected with a sale under this Act, from his remedy in a personal action for damages against the person by whose act or omission he considers himself to have been wronged.

77. If a sale made under this Act be annulled by a final decree of a Civil Court, application for the execution of such decree shall be made within six months after the date thereof; otherwise the party in whose favor such decree was passed shall lose all benefit therefrom.

And no order for restoring such decreeholder to possession shall be passed until any amount of surplus purchase money that may have been paid away by order of a Civil Court be repaid by him, with interest at the highest rate of the current Government securities.

And if such party shall neglect to pay any amount so recoverable, within six months from the date of such final decree, he shall lose all benefit therefrom.

78. In the event of a sale being annulled by a final decree of a Court of Justice, and the former proprietor being restored to possession, the purchase money shall be refunded to the purchaser by Government, together with interest at the rate of twelve per centum per annum.

79. Any suit brought to oust the certified purchaser as aforesaid on the ground that the purchase was made on behalf of another person not the certified purchaser, or on behalf partly of himself and partly of another person, though by agreement the name of the certified purchaser was used, shall be dismissed with costs.

80. No Civil Court shall be competent to order the Revenue Authorities to enter any tenure or farm in the special register. Provided always that the refusal of the Revenue Authorities so to register any tenure or farm shall not affect the title of the holder, whatever it may be.

81. Subject to the general law of limitation, any person thinking himself wronged by the registry of a tenure or farm may file a suit for the cancelment of the same.

Act XI of 1859, section 34.

Ibid., section 35.
Government letter above quoted, paragraph 15.

Act XI of 1859, section 36.

Ibid., section 47.

Ibid., section 48.

Act VII (B.C.) of 1868, section 5.

Civil Procedure Code, section 78.

Now, see section 15 Act VII (B.C.) of 1890.

Ibid., section 57.

Ibid., section 58.

Ibid., section 56.

PART VIII.—MISCELLANEOUS PROVISIONS.

82. Every notice in and by this Act directed to be issued shall be served by delivering to the person to whom it may be directed, a copy thereof signed by the Collector and sealed with the seal of the Collector's Office or by delivering such copy at the usual place of abode of such person, or to some adult male member of his family, or, in case it cannot be so served, by affixing such copy upon some conspicuous part of the usual or last-known place of abode of such person.

In case such notice cannot be served in any of the ways hereinbefore mentioned, it shall be served in such way as the Collector issuing such notice may direct.

Explanation.—A servant is not a member of the family within the meaning of this section.

83. (a) The Collector may refer to any Assistant Collector, Deputy Collector, Assistant Commissioner, or Extra Assistant Commissioner subordinate to him any application under section 19, 20, 21 or 26, any case arising under section 28, any application under section 54, and any application for common registry under section 67, and such officer as aforesaid shall hear and determine such application or case accordingly. The provisions of this Act shall apply to any such officer hearing or determining such applications and cases.

(b) All orders passed by any officer subordinate to a Collector shall be appealable to the Collector within fifteen days; all orders passed by a Collector shall be appealable to the Commissioner within thirty days; and all orders passed by a Commissioner shall, subject to the provisions of this Act, be appealable to the Board within sixty days after the passing of such orders respectively.

84. The order of a Commissioner for the special registry of a tenure under the provisions of Part VI shall be open at any time within one year from the date of registry to revision by the Board of Revenue or the Local Government, on the ground of the Government Revenue not having been sufficiently secured or of the invalidity of the tenure, as the case may be.

85. Any Collector conducting a sale under this Act shall be competent to punish any contempt committed in his presence in open kachahri or office for the time being, by fine, to an extent not exceeding two hundred rupees, commutable, if not paid, to imprisonment in the Civil jail for a period not exceeding one month; and the Magistrate to whom such an offender may be sent by a Collector shall carry his sentence into effect. Provided that an appeal from any order passed under this section shall lie to the Commissioner, whose decision shall be final.

86. A default to make good a bid by making the deposit required by Section 43, shall be held to be a contempt.

87. When an estate is put up for sale under this Act for the recovery of arrears of revenue due thereon, if there be no bid the Collector may purchase the estate on account

of Government for one rupee, or if the highest bid be insufficient to cover the said arrears and those subsequently accruing up to the date of sale, the Collector may take or purchase the estate on account of the Government at the highest amount bid; in both which cases the Government shall acquire the property subject to the provisions of this Act.

88. The Collector on the part of Government shall demand from applicants under the sections specified in the first column of the third schedule to this Act annexed the fees specified in the third column of the said schedule, which schedule shall be taken as part of this Act, and applications under the said sections shall not be received unless the said fees are tendered therewith.

89. The provisions of Regulation VII, 1822, and Regulation IX, 1825, shall be in force in every estate in any part of which a measurement, survey, or local enquiry may be made under this Act; and in every estate purchased or taken on account of Government under this Act.

90. All sales of land of lakhiraj tenure, which may heretofore have been held in conformity with the procedure of Act XI of 1859 for payment of arrears of revenue or of demands, shall have such and the same effect as if they had been held in execution of a decree against the person liable to pay the revenue or demand for satisfaction of which such sale may have been held.

Act III (B.C.) of 1862, section 3.

Act XI of 1859, section 6.

Act VII (B.C.) of 1868, section 9.

THE FIRST SCHEDULE—(See Section 2.)

Regulations of the Bengal Code.

Number and year.	Subject.	Extent of Repeal.
V of 1812 ...	A regulation for amending some of the rules at present in force for the collection of the Land Revenue.	Sections 24 and 25.
XI of 1822 ...	A regulation for modifying and explaining the existing regulations relative to the sale of land for the recovery of arrears of revenue, &c.	Section 36.

Acts of the Governor-General in Council.

XII of 1841 ...	An Act for amending the Bengal Code in regard to sales of land for arrears of revenue.	Section 2.
XI of 1859 ...	An Act to improve the law relating to sales of land, &c.	The whole Act.

Acts of the Lieutenant-Governor of Bengal in Council.

III of 1868 ...	An Act to amend Act XI of 1859 ...	The whole Act.
VII of 1868 ...	An Act to make further provision for the recovery of arrears of land revenue and public demands recoverable as arrears of land revenue.	Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14.
II of 1871 ...	An Act to amend the procedure for the recovery of arrears of land revenue in respect of tenures not being estates.	The whole Act.
VII of 1876 ...	An Act to provide for the registration of revenue-paying and revenue-free lands, &c.	Sections 69, 70, 71, 72, 73, and 74.
IX of 1879 ...	An Act to amend the law relating to the Court of Wards.	Sections 23, 24, 25, and 26.
III of 1881 ...	An Act to amend the "Court of Wards" Act, 1879.	Sections 2 and 4.

New.

THE SECOND SCHEDULE (see section 50).

CERTIFICATE.

I certify that A. B. has purchased under Act No. 1 the estate (or share of an estate or independent tenure) specified below, standing in the taulih of the district of , and that his purchase took effect on the day of (being the day after that fixed for last day of payment).

(Signed)

Collector.

SPECIFICATION.

(if of an entire estate.)

Taulih number
Name of estate
Name of the former proprietor
Revenue.

(if of a share of an estate.)

Taulih number of the entire estate
Name of the entire estate
Revenue of the entire estate
Description of the share sold
Subordinate taulih number of the share sold
Name of the former proprietor of the share sold
Revenue for which the share sold is separately liable

(if of an independent tenure.)

Taulih number, or number on Collector's register
Name of the tenure
Revenue
Name of the former tenure-holder

THE THIRD SCHEDULE (see section 88).

FEES.

Section.	Nature of application.	Fees payable.
14	For registering an address to which notice of default may be sent.	Two rupees yearly.
15	For deposit of money or securities to protect estate from sale.	Half per cent. on the amount deposited.
15	For interest or securities so deposited drawn by the Collector.	Half per cent. on the amount drawn.
15	For withdrawal of a deposit so made.	Half per cent. on the amount withdrawn.
17	For deposit for protection of estate by non-proprietor.	Half per cent. on the amount deposited.
19, 20 or 31.	For opening separate account in respect of a share or interest in an estate.	If the revenue of the estate do not exceed Rs. 1,000—at the rate of ten per cent. upon the revenue. If the revenue of the estate exceed Rs. 1,000—at the rate of ten per cent. on Rs. 1,000 and two per cent. on all above that amount.
66, 69 or 70.	For registry of tenures	Two rupees on each application.

The Draft Revenue Sale Bill.

EXPLANATORY NOTES BY MR. BEAMES.

THE law regarding the sale of estates for arrears of revenue is contained principally in Act XI of 1859. A considerable portion of this Act is merely a reproduction of an older law, Act I of 1845, as that again was of Act XII of 1841. The revenue officers of the present day are therefore administering a law all the provisions of which are thirty, and some nearly fifty, years old; and this fact alone would, in a country the development of which has been so rapid and striking as that of Bengal, be a sufficient justification for undertaking its amendment. But not only are changes rendered necessary by the altered economic conditions of these provinces: defects have been brought to light by the experience of so long a period; cases have occurred in which the meaning of particular sections has been found to be open to doubt; and modifications are called for in order to bring the law into harmony with recently introduced methods of procedure for the recovery of public demands. From time to time also subsidiary and supplementary Acts have been passed having reference to specific portions of the sale law, and it is found inconvenient and even misleading to have the different parts of one and the same subject embodied in a number of separate enactments scattered all over the statute book.

2. The early history of the methods adopted for the recovery of arrears of Government revenue is fully detailed in Mr. Grimley's excellent "*Manual of the Revenue Sale Law*," and need not therefore be given here. A brief account of the course of legislation subsequent to the passing of Act XI of 1859 is, however, necessary to explain the method followed in preparing the present Bill.

3. The first modification took place in 1862, three years after the passing of Act XI, when by Bengal Act III of that year the scale of fees prescribed for opening separate accounts and for common and special registry in Act XI was reduced, the period allowed for registration of tenures created before the passing of that Act was extended to three years, and a period of three months from the date of the document creating them was fixed for the registration of tenures created after the passing of that Act. The reasons for, and the results arising from, this enactment will be discussed further on under the sections which refer to it.

4. The next important addition to the subject of sales was made by Bengal Act VII of 1868. The first fourteen sections of this Act supplemented omissions and cleared up doubts regarding certain points in Act XI. It supplied definitions of the principal terms used, none of which were defined in that Act. It introduced some modifications into section 25 regarding appeals, and extended the period allowed for notices of sales under section 6 from fifteen days to thirty, and that at which sales, the purchase-money for which had been paid up, should become final, from thirty days to sixty. It made some new provisions regarding the service of notices: endeavoured (not perhaps successfully) to give finality to sales and security to the purchaser by declaring that the sale certificate issued under section 28 of Act XI should be conclusive evidence that all notices required by that Act to be served had been served, and that the purchaser's title should not be "impeached or affected" by any informality in such service. It quieted certain doubts as to the legality of sales of *lakhiraj* tenures for arrears of revenue, and made a few minor provisions. But the most important additions to the sale law made by this Act were the provisions of section 11 and the following, which placed tenures paying revenue direct to Government on the same footing as regards sales, and gave the purchaser as near as might be the same privileges as in the case of permanently settled estates.

The second portion of this Act created a new method of procedure called the Certificate Procedure, for the recovery of various dues and demands of Government. As this matter forms the subject of a separate Bill which is now under preparation, it need not be further alluded to here.

5. A minor amending Act (Bengal Act II of 1871) was also passed to correct certain errors which had crept into the wording of section 11 of Bengal Act VII of 1868.

6. The Land Registration Act (Bengal Act VII of 1876) introduced a comprehensive system of recording the names of proprietors of estates, which, though not specially made applicable to the sale law, reacted upon it in various ways, particularly in defining the person known as the "recorded proprietor," an expression which, when used in Act XI, had not so clear and distinct a significance as it has acquired since the passing of this Act. It is true that before this Act was passed the law required persons succeeding to the ownership of estates to have their names entered in the Collector's registers; but this proceeding, known as "*Dakhil kharij*," or "*Nam jari*," was not compulsory, and was very widely neglected, so that the distinction between a recorded proprietor and one who was not recorded had for the most part no particular value.

Apart from this point, however, a material addition to the sale law was made by sections 69 to 74 of this Act; section 69 provided that separate accounts under sections 10 and 11 of Act XI should not be opened for incorrect shares, that is, for shares which did not correspond to the interest in the estate held by the person applying for the separate account. Section 70 extended the principle of sections 10 and 11 of Act XI to cases where a proprietor held an interest in a specific portion of an estate not extending over the whole estate. Section 72, the most important of all, enabled the Collector to close a separate account on the application of the proprietor when it no longer corresponded to the interest held by him in the estate. The remaining three sections, 71, 73 and 74, laid down the procedure to be followed in opening and closing such accounts.

7. Again in the same year the Partition Act (Bengal Act VIII of 1876) contained two provisions regulating the effect of the sale law upon estates under partition and upon shares in such estates for which separate accounts had been opened.

8. The Court of Wards Act (Bengal Act IX of 1879) also effected some change in the provisions of section 17 of Act XI, in respect to the exemption from sale of estates under the management of the Court and estates the property of minors. The sections of the Ward's Act relating to these points were repealed by Bengal Act III of 1881, and re-enacted in a somewhat altered form.

9. Finally Bengal Act VII of 1880, the Public Demands Recovery Act, which repealed (as above stated) the latter half of Act VII (B.C.) of 1868, is directed to be construed as one with Act XI of 1859 and Act VII (B.C.) of 1868, "so far as is consistent with the tenor thereof," a somewhat vague and misleading provision, because not only does the Public Demands Act treat of what has long become a totally different subject from that of revenue sales, but there is no guide as to when any provision of this Act is, or is not, consistent with the tenor of Act XI.

10. The above-mentioned Acts and portions of Acts constitute what is called the substantive law on the subject of revenue sales at the present time. The adjective law (as it is called), consisting of rulings of the Judicial Committee of the Privy Council and the High Court of Calcutta, is not very extensive nor very important. It is believed that all the really important cases will be found noticed in the detailed explanations on various sections of the Bill, and where any of them point to the necessity for amendment of any part of the law, that amendment has been inserted in the Bill. For the most part, however, the rulings are explanatory of the meaning of the law, or merely affirm its principles. In an Act like Act XI, which is to a great extent confined to executive matters, it was to be expected that the case law should be meagre. A large number of important questions has, however, been raised from time to time, and these form the subject of numerous files of correspondence in the office of the Board of Revenue. The amendments suggested by these files have been worked into their proper places in the Bill.

11. In most of these cases the conclusion arrived at by the Board, in many instances with the concurrence of Government, was that whenever a general amendment of the law might be called for, these points should be brought up for consideration. It was not, however, for some time thought desirable that a general revision of the law should be undertaken. Instances of inconvenience and difficulty caused by certain provisions of the law continued, however, to accumulate, and at length it became clear that the question was ripe for discussion. After much careful examination of the various points in a long correspondence, the details of which it is not necessary to go into here, it was resolved that legislation should be undertaken. In accordance with this decision the present Bill has been prepared.

12. The work to be done was of three kinds—

- (1) Re-arrangement.
- (2) Consolidation.
- (3) Amendment.

First, Re-arrangement.—The sections of Act XI do not in all cases follow the regular sequence of events in the course of a revenue sale. This is due to the fact that Act XI was founded on Act I of 1845, and the new provisions which it introduced were inserted among the sections of the older Act on principles the grounds of which cannot now be traced, but the result has been that sections which should stand together are found widely separated, while some that should be first are put last, and *vice versa*. It has been thought likely to prove convenient to re-arrange the sections in their natural order, and to insert the sections brought in from other Acts, as also the new sections, in the order in which they would naturally fall in tracing the history of an arrear from its inception to its ultimate consequences. For the same reason the Act has, as is customary in recent enactments, been divided into parts. Thus Part I contains such preliminary matter as title, extent, commencement, repeals, and definitions. Part II treats of all processes prior to the actual sale; as the determination of what constitutes an arrear, the latest day of payment, issue of notifications and notices. Part III is also considered as prior to sale, because the protection and exemption which it affords, if availed of, would render it impossible for a sale to take place. In this part come the provisions for deposits, the opening of separate accounts, and the exemptions claimable by estates under the Court of Wards and Attached Estates. Part IV deals with the actual sale from the determination of the place where and the time when it can take place, through appeals, annulment, confirmation, and delivery of possession down to the final disposal of the surplus sale proceeds. Part V defines the rights and liabilities of purchasers of various kinds, and Part VI, which is closely allied to

it, provides for the protection of incumbrances against a purchaser by common and special registry, and the incidents thereto appertaining. Part VII groups together the sections relating to proceedings in the Civil Courts, the last in the series of remedies open to the public against sales, and the Act concludes with Part VIII, which contains certain miscellaneous provisions which could not conveniently find place elsewhere.

13. *Second, Consolidation.*—This process consists in incorporating into the Bill in the appropriate places the sections of the supplementary and subsidiary Acts mentioned above. In some cases these sections have been inserted as separate sections, in others (as, for instance, section 11 of Act VII (B.C.) of 1868) it has been found more convenient to break up the section and work the parts into the corresponding sections of Act XI.

14. *Third, Amendment.*—Under this head come the new sections and new parts of sections which have been introduced in order to carry out the orders of Government passed from time to time on references from the Board, or to give effect to rulings of the High Court, or to express the suggestions made by experienced officers and others who have been consulted. The wording of Act XI has also been cautiously modernised where needful, and, as far as was possible, vernacular words have been replaced by English equivalents. A few vernacular words have been retained as having a special technical meaning which would not necessarily be conveyed by a literal translation into English. The full details of the amendments, with the reasons for them, will be found in the following paragraphs; but it will perhaps be convenient to give in this place an abstract of the principal alterations and amendments of the existing law embodied in the present Bill—

- (a) Definitions of the terms used in the Act have been supplied.
- (b) The four classes of arrears and demands for which a notification is required to be issued have been reduced to one, the other three classes being practically obsolete, or provided for by other laws.
- (c) Instead of leaving to the Collector power to receive or reject a tender of arrears made after sunset on the last day of payment, such arrears are now made legally receivable at any time between the latest day of payment and the sixth day before the day of sale, on payment of a fine not exceeding 25 per cent. of the arrear.
- (d) When one of the proprietors of an estate pays an amount of revenue, to save the estate from sale, which is in excess of the amount due from him for his interest in the estate, he can recover the excess payment from his co-sharers by the certificate procedure.
- (e) The Collector can close *suo motu* a separate account which has been opened for a share of an estate whenever he becomes aware that the account is incorrect, i.e. that it does not correspond to the interest in the estate held by the person in whose name it has been opened.
- (f) Before holding sales for arrears, the Collector is to call for all the notifications and notices required by law to be issued, and satisfy himself that they have been properly issued, and an attestation of his having done this is to be placed on record and given to the purchaser with the certificate of sale.
- (g) Persons other than the defaulting proprietor can appeal to the Commissioner against the sale of an estate.
- (h) Before a reference can be made to the Board to cancel the sale of an estate on the ground of hardship, the defaulting proprietor must deposit a sum sufficient to satisfy the claim of the auction purchaser for interest and for other demands of Government which he may have paid.
- (i) The Collector is to give the purchaser a certificate of sale on application only, and no steps for giving him possession will be taken till he has taken out the certificate. The procedure has been assimilated to that of the Civil Procedure Code, sections 316, 318 and 319, in giving possession of immoveable property in execution of decrees.
- (j) In the disposal of surplus sale proceeds the Collector is empowered, when application is made by any one who is not the defaulting proprietor, to hold an enquiry and either pay the amount or refer the applicant to the Civil Court.
- (k) The liability of the person declared to be the purchaser under section 22 of Act XI (section 43 of the Bill), and his right to collect rents from tenants and ryots are made to run from the last day of payment.
- (l) The provisions of Act XI for common and special registry of talukdari tenures have been extended to tenures of all descriptions without limitation of the period within which application may be made, and at a reduced fee of Rs. 2 in each case. The only condition imposed is that where the tenures have been created by deeds such deeds shall have been duly registered, and where not created by deeds, or where the deeds have been lost, proof that the tenure has been in existence for twelve years must be adduced.
- (m) The schedule of fees prescribed for various applications under the Act has been revised.

PART I.

15. *Section 1.*—The extent of the Bill is the same as that of Act XI as declared by various notifications from time to time issued.

16. *Section 3.*—Act XI contained no definitions. This defect was to some extent supplied by Act VII (B.C.) of 1868, and the definitions in the latter Act have been inserted into this section of the Bill, those of "estate" and "proprietor" having been expanded by the addition of a few words taken from the corresponding definitions in the Tenancy Act. In the definition of "Revenue" the words relating to advances for takavi, embankments, and the like have been omitted, as under the law now in force these sums are recoverable by the certificate procedure. "Tenure" has been more strictly defined. In section 1 of Act VII (B.C.) of 1868 it was defined as all interests in land other than estates; but this definition would admit raiyats' holdings which was apparently not intended. The words "nor raiyats' holdings as defined in the Bengal Tenancy Act, 1885," have therefore been inserted. This addition is important with reference to the extension of the system of common and special registry under Part VI of the Bill. A new expression, "independent tenure," has been adopted to facilitate the incorporation of the provisions of section 11, Act VII (B.C.) of 1868, into the numerous sections of the Bill where such incorporation is necessary, and where it would not have been possible to insert the words "tenure not being an estate the revenue of which is payable to Government" without sacrificing lucidity and grammatical accuracy.

A few additional definitions of minor importance have also been inserted.

PART II.

17. This part includes all the proceedings prior to the actual sale. It consists partly of the existing provisions of Act XI, with the additions made by Bengal Act VII of 1868 worked into their proper places, and partly of some new and important provisions.

18. *Section 8.*—This is section 5 of Act XI with the addition of the words "independent tenures" from section 11 of Act VII. An important change has, however, been made. The section as it stands in Act XI specifies four classes of arrears, no sale for the recovery of which can take place till after issue of a notification. According to present practice, however, the first, second and fourth of these classes are recoverable by the certificate procedure under the Public Demands Recovery Act, and in fact it is very doubtful whether arrears of the first two classes ever occur at all in the present day. These three classes have therefore been struck out and the remaining class incorporated into the text of the section. No alteration has been made in the wording of this class, as the Privy Council decision in the case of *Bunwari Lal Sahu vs. Mahabir Prosad Singh* XII B. L. R. p. 297, shows that there is no room for any serious doubt as to the meaning of the words as they stand.

19. *Section 11.*—This section, which is new and supersedes section 18 of Act XI, introduces a very material change in the law. Section 18 was merely a re-enactment of a similar provision in Act I of 1845, which was intended to mitigate the stringency of what is known as the "sunset law" (section 6 of Act XI), under which, if the arrears are not paid in full by sunset on the latest day of payment, the estate becomes liable to sale. But section 18 contains no instructions to Collectors as to the considerations which should guide them in accepting or refusing payment tendered between sunset of the latest day of payment and the day of sale. Frequent instructions have, it is true, been issued for the guidance of Collectors in this matter by the Board and Government, and such instructions have always inculcated a spirit of leniency. But from the nature of the case it was impossible to secure uniformity of practice in all districts, and the discretion allowed to Collectors by the law has in consequence been exercised in different ways by different officers. This, though inevitable under the circumstances, exposes landed proprietors to all the inconvenience arising from uncertainty, and it is felt by Collectors themselves to be an embarrassing responsibility from which they would gladly be relieved. Act XII of 1841, the precursor of Act I of 1845, has been repealed, all but one section which provides that "there shall be no demand of interest or penalty upon any arrear of land revenue." This section it is now proposed to repeal, and having done so, to

* When the arrear is less than Rs. 5,000	...	25 per cent.
Rs. 5,000 or less than	...	
Rs. 10,000	...	12½ "
Over Rs. 10,000	...	6½ "

substitute for the present law section 11 of the Bill, which authorizes the Collector to accept arrears subsequent to the last day of payment, if accompanied by a graduated penalty as noted in the margin.* It is not proposed to allow the Collector any option in the matter, and the result will be that default

will not, as at present, be invariably followed by the extreme measure of sale, but will involve in the first instance only some additional expense. The maximum penalty has been fixed at 25 per cent. (which was the amount levied in former times under Regulation VII of 1830) in order to prevent the concession being abused and default thereby encouraged. But in order that the penalty, while heavy enough to prevent intentional postponement, may not press with undue severity on persons who default for large amounts, it is proposed to levy half the ordinary penalty for arrears exceeding Rs. 5,000, and a quarter of the penalty for those exceeding Rs. 10,000. The section provides that arrears accompanied by the penalty shall be received up to the sixth day before the date of sale in ordinary cases, while section 12 of the Bill (which is also new) allows of its being received in extreme cases until the day of sale itself. Cases falling under the latter of these two sections will probably be rare, though it seems necessary to allow the Collector this small amount of option to meet peculiar and exceptional circumstances; while by fixing the close of the period for the receipt of ordinary arrears at six days before the date of sale, a stop

will be put to the disturbances which not unfrequently occur in the Collector's office from defaulters arriving at the last moment and clamorously demanding permission to pay even while the sales are in progress.

20. *Section 14*—Is also new. It was recommended in 1874 by the British Indian Association that notices of default should be issued to certain classes of persons having claims on or interests in an estate. It was not found practicable to give effect to this suggestion at the time, nor indeed can it now be accepted in its entirety. It has, however, been provided in this section that persons having an interest in an estate may by paying a small fee, and registering their names and addresses in the Collector's office, receive notice of default by registered letter. It has been felt, however, to be necessary to provide against this arrangement, made solely for the benefit of the public, being made use of as an argument in appeals against sales, and it has therefore been distinctly laid down that no sale shall be vitiated by non-receipt of the letter, provided it can be shown that it has been registered and posted. It is not probable that the public will avail themselves very largely of this section, and the work of a Collector's office will not be very much increased thereby. The provision, however, meets what has been asserted to be a defect in the existing law, and affords an effectual protection to those who may avail themselves of it against the estates in which they are interested being sold without their knowledge.

PART III.

21. *Sub-head "A. Deposits"*—Is merely a reproduction of the provisions of the existing law, and calls for no special remarks.

Section 16.—It has been represented that when any one of the proprietors of an estate pays in to the Collectorate land revenue in excess of the amount due from him in order to save the estate from being sold, owing to default of his co-sharers, the only means of recovering this excess amount is by a contribution suit in the Civil Court, which is so costly and tedious a process that it is practically not worth while to resort to it. To remedy this grievance it has been suggested that the procedure of section 49 of the Cess Act (Bengal Act IX of 1880) should be extended to this class of cases, and the amount paid in excess should be recoverable by the certificate procedure. With this view this section has been inserted, taken almost *verbatim* from section 49 of the Cess Act. The two last paragraphs of that section have, however, been omitted, as they will be more appropriately placed in the Public Demands Act itself, a Bill for the amendment of which is now under preparation. A sentence has been inserted, taken from section 9 (b) of the Public Demands Act, making applications under this section liable to court fee stamp, as for a plaint in a money suit of similar value.

Sub-head "B. Separate Accounts"—Similarly contains the sections of Act XI and Bengal Act VII of 1868, referring to the opening of separate accounts, only slightly re-arranged and brought together. The only new provision is that in italics at the end of section 24, which provides on the analogy of section 11 of the Partition Act (Bengal Act VIII of 1876) that no separate account shall be opened for a share the revenue of which is less than one rupee. Much practical inconvenience having been found to arise from opening separate accounts for extremely small shares, this course has been taken to prevent such cases from occurring.

22. *Section 28*—Supplies an omission in the existing law. While section 72 of Act VII (B.C.) of 1876 provided a procedure by which a person in whose name a separate account stands open can procure the closing of that account on the extent of his interest in the estate being changed, no provision existed by which a Collector could close a separate account *suo motu* on finding that it was incorrect. Several cases have occurred in certain districts, in which, through mistake or fraud, persons had had separate accounts opened in their name for shares in an estate larger or smaller than those which they really possessed. A share of this kind was brought to sale for arrears of revenue, and the purchaser on attempting to take possession found that the defaulter, though having a separate account opened in his name for a 4-anna share, had really been in possession of only a 3-anna share. He then under section 29 called on the Collector to put him in possession of a 4-anna share in accordance with the sale certificate granted under section 28, and as this could not be done much difficulty ensued. To remedy cases of this kind this section has been inserted, modelled on section 28 of Act VII (B.C.) of 1876. It provides for the Collector giving notice to the holder of the share, and allows him full opportunity for objection, while it enables the Collector to close the separate account if satisfied that it does not accurately correspond with the extent of the holder's interest in the estate.

23. *Sub-head C, Estates under Court of Wards*.—These sections have been transferred to the Bill from the Court of Wards Act (Bengal Act IX of 1879 as amended by Bengal Act III of 1881). This portion of the law, it is considered, belongs more strictly to an Act concerning sales than to one concerning wards, as the action which it prescribes is taken by the Collector in the Sale Department of his office, and not in the Wards Department. One of the objects of this Bill as explained above being to bring together in one enactment all the scattered provisions of law relating to the subject of sales for arrears of revenue, these sections naturally fall into the place in which they have now been inserted.

24. The only change that has been made in the sections as they stood is that at the end of section 35 the provision in section 32, to the effect that on an estate which has been attached for arrears due when it ceased to be under the Court, being released from attachment, the Collector shall furnish the proprietor with accounts of the management while under attachment, has been extended to the case of minor's estates similarly released from attachment.

25. *Sub-head D, Attached Estates. Sections 37 and 38.*—The portions of section 17 of Act XI which have not been repealed are here inserted, but they have been divided into two sections. This has been thought a more convenient arrangement, as the conditions of the two kinds of attachment are somewhat different. Some officers having entertained doubts whether the attachment of immoveable property, such as a revenue-paying estate, under section 10 of the Public Demands Recovery Act, was an attachment of the nature contemplated by section 17 of Act XI, operating to exempt the estate from sale for arrears of revenue, the Board have found it necessary to explain that such an attachment does not exempt from sale. It is in fact merely an attachment in execution of decree. It has been thought advisable for the removal of such doubts to embody this ruling of the Board in the present Bill, in the shape of an explanation to section 38.

PART IV.

26. *Section 41.*—In the Full Bench ruling of the High Court in the case of *Lala Mobarak Lal versus Secretary of State and others*, XI I. L. R., Cal., p. 200, it has been held that in a case where a sale had been held less than thirty days from the date of affixing the notice prescribed by section 6 of Act XI, such sale might be set aside notwithstanding the limitations laid down by section 33. The irregularity, it was held, was not of such a nature as could be cured by the provisions of section 8, Act VII (B.C.) of 1868, and the sale was in consequence not a sale under Act XI at all. Irregularity in the issue of the notifications and notices prescribed by law having thus such serious consequences, it becomes necessary to guard against such errors in future. It is believed that in most cases of the kind the errors are caused by mistake and oversight on the part of the subordinate ministerial officers to whom the issue of such notices is usually entrusted. It has therefore been provided that before the sales actually take place all such notifications and the returns of service of all notices shall be personally examined by the Collector himself, and that he shall place on record formal attestation that he has satisfied himself by personal inspection that all that the law requires in this respect has been duly performed. The number of notifications and returns of service which the Collector will have to examine will not be great, as in most districts (if not in all) it is customary to issue only one notification under section 6 for all estates in arrear on any one sale day. Some instructions will be required to guide Collectors in securing that the dates of issue of notices and affixing of notifications are accurately recorded, and that the returns of service are intelligible and reliable; these, however, can be provided for by executive orders of the Board or Government. The attestation will have the effect noticed under section 52 *infra*, and will, it is believed, render it impossible for errors regarding the issue of notices to occur in future.

Section 42.—As a further security for the proper performance of the duty of attestation by the Collector prescribed in section 41, this section, which reproduces section 21 of Act XI has been slightly changed. The initial words, "on the day of sale fixed according to section 6 of this Act" have been omitted, and in their place the words "upon completion of the attestation prescribed in the last preceding section" have been inserted. This will have the effect of rendering any sales illegal which are undertaken without the previous process of attestation. The only other alteration in the section is the substitution of the word "rent-roll" for the vernacular "taujih," a practice already in force in the Board's circulars and orders.

27. *Section 44.*—A question has been raised whether the difference between two bids should be realised from the defaulting bidder by the Collector *suo motu*, or only on the application of the late proprietor. In some districts the former, in others the latter course was pursued. It has therefore become necessary to amend section 23 of Act XI so as to clear up the point in question. It seems to have been intended that this amount should be realized by the Collector as part of the procedure necessary for recovering arrears of revenue, and it does not seem equitable that the cost of realizing the amount should be thrown on the late proprietor, who is not in any way responsible for default being made by a bidder at the sale. The words "the Collector shall proceed to levy the difference from him" have therefore been substituted for "the difference shall be levied from him." This will make it incumbent on the Collector to proceed at once of his own accord to recover the amount, instead of as at present (in some districts) waiting till the late proprietor makes an application to that effect.

28. *Section 46.*—It is generally considered that appeals against sales can be preferred only by the defaulting proprietor, and this view, though based on no distinct provision of the law has been held by the Board, and has been confirmed by an opinion given by the Advocate-General in 1883. It rests upon the argument that as the section (section 25 of Act XI and section 2 of Act VII) prescribes that the Commissioner on annulling a sale may award to the purchaser payment from the defaulting proprietor of compensation for his loss, the proprietor must be a party to the appeal, or, in other words, the appellant. A construction of the section which would let in the persons mentioned in section 9 of Act XI (section 17 of this Bill) would render several appeals by persons interested admissible, and this does not seem to be contemplated by the law. The ground for appeal also is simply this, that the sale has been conducted contrary to the provisions of the Act, and this is practically a question between Government and the defaulter alone, and concerns no one else.

Without questioning the correctness of this view, it must be observed that it is an inference only and not a clear precept of law, and it seems therefore expedient that the law should state definitely who are the persons who may appeal. In the opinion of some officers of experience the right of appeal should be extended to others than the defaulting proprietor, and an attempt has here been made to give effect to this opinion. It is, however, a matter of some difficulty to do this, and it is questionable whether the admission to appeal of others than the defaulting proprietor may not lead to serious complications. If an appeal be made by one who is not a proprietor, then the ground of the appeal could not be merely that the sale had been conducted irregularly, but it would also have to be proved that some injury had thereby been caused to the interests of the appellants, and if such appeal were decided in their favour and the sale annulled, it would not be equitable to make the defaulting proprietor, who would not have been a party to the appeal, pay compensation to the purchaser. On the other hand the law, as at present interpreted, debars all persons, not proprietors, who may be injuriously affected by a sale, from obtaining any redress, for section 33 of Act XI (section 74 of this Bill) provides that no sale shall be annulled by a Civil Court unless the appellant shall have first pleaded substantial injury in an appeal before the Commissioner. All remedy is therefore interdicted to those who, not being proprietors, cannot first appeal to the Commissioner.

29. Having regard to the above considerations, the section has been tentatively amended by inserting after "to receive" the words "from any person injuriously affected thereby." This renders necessary further alterations in the latter part of the section, for a person injuriously affected must plead other grounds than mere irregularity of procedure. Irregularity may be a sufficient ground for appeal as between the proprietor and Government, because the two parties are under engagement to one another, and the proprietor has a right to demand that he shall not be deprived of his estate, even though he default, except through the duly established forms of law. But with others than the proprietor Government is under no such obligation, and in their case the only ground for appeal is that the irregularity has inflicted on them some injury. This is the line taken in section 33 of Act XI, and to be consistent it must be the line taken in an appeal before the Commissioner. The words in italics have therefore been inserted.

A further alteration is also necessary to make it clear that compensation to the purchaser can only be awarded when the proprietor is the appellant. Words to this effect have therefore been inserted.

30. At the end of the section the rate of interest on compensation payable to the purchaser has been raised from "the highest rate of the current Government securities" which is generally $4\frac{1}{2}$ per cent., to 12 per cent., on the ground that purchases of estates at revenue sales are frequently made with borrowed money, and that money cannot ordinarily be borrowed in these provinces at less than 12 per cent.

31. Section 47.—After "hardship or injustice" have been inserted the words "having been caused to the appellants," the section as it stands being open to the charge of vagueness. The portion in italics has been incorporated into the law from a circular of the Board issued with the sanction of Government under the following circumstances. On sales being annulled by Government under this section, the law gives to Government power to impose such conditions as may appear proper, but it does not state how those conditions are to be enforced. In the case of the proprietor refusing or neglecting to comply with the conditions, when those conditions involve his paying interest on the purchase-money, it has been held that the purchaser can only recover the amount so due to him by a civil suit. But as this is manifestly an unsatisfactory state of things, it was suggested that the proprietor, when appealing on the ground of hardship, should prove his readiness to comply with the conditions that might be imposed on him by Government by depositing beforehand the amount of interest on purchase-money and a sum sufficient to cover other payments which may have been made by the purchaser. This was the substance of the circular, and it is now thought advisable to give it the sanction of law.

32. Section 48.—The rate of interest has here also been raised to 12 per cent. for the reasons stated under section 46.

33. Section 50.—Important changes have been made in this section. The law as it stands (section 28 of Act XI) provides that "immediately on a sale becoming final and conclusive the Collector shall give to the purchaser a certificate." But it is useless to prescribe that the Collector "shall" do something which it may not be in his power to do. The Collector cannot give the purchaser the certificate if the purchaser will not come and take it. In many districts it has been found that purchasers do not come to take the certificates, and the Collector is therefore powerless to carry out the law. The reasons for the neglect to take certificates are variously stated by different officers, but they may be practically reduced to three heads—

- (1) Because the purchaser does not want to get possession. Either the defaulting proprietor has purchased the estate himself *benami* and remains in possession all along; or the purchaser retransfers the estate to the defaulting proprietor and receives back the purchase-money; or the estate has no real existence, having diluviated or otherwise disappeared, and the purchaser, on discovering this, simply defaults at the next kist and so gets rid of a bad bargain.

- (2) Because as the law stands the Collector notifies the transfer on the estate without waiting for the purchaser to take the certificate. The purchaser thereby gets possession without difficulty, and the ryots having heard the proclamation pay him rent without opposition. The Collector must also under section 29 give possession before the certificate is taken. Under these circumstances unless the purchaser's title is disputed there is no need for him to take out the certificate, all that he requires being done for him without it.
- (3) Because under Article 16, Schedule I of the Stamp Act (I of 1879), the certificate must bear the same stamp as a conveyance, which amounts to one rupee on every hundred rupees of the purchase-money.

34. Undoubtedly the heaviness of the stamp duty is one of the chief causes of the general neglect to take out the certificate. But as in all cases of private sale a conveyance is required and a stamp duty is charged thereon, it is obviously fair that stamp duty should also be charged on the certificate which in revenue sales takes the place of the conveyance in private sales. The loss to the revenue by purchasers not taking out certificates is in some districts considerable, and it becomes therefore necessary to make some provision by which the taking out of certificates shall be made as far as possible compulsory.

With this object, in the first place the words of section 28 quoted above have been omitted, and the words in italics in section 50 of the Bill substituted. This change relieves the Collector from the injunction to do what he has not the power to do, and substitutes the provision that the purchaser shall be entitled to receive a certificate on application.

35. In the second place the procedure of this and the following section has been assimilated to that of the Civil Courts in giving possession of immovable property purchased at a sale in execution of decree as provided in sections 316, 318 and 319 of the Civil Procedure Code. The difference between this procedure and that of Act XI lies in the material point that in the former possession is not given till the certificate has been granted. Any purchaser therefore who requires to obtain possession (as the great majority of them do) will be compelled to take out the certificate without delay. It has now been provided, by the insertion in section 50 of the words "on such certificate being granted," that the Collector will not notify the transfer in the interior of the district until the certificate is granted. The insertion of the same words at the beginning of section 51 also precludes the Collector from giving possession till the certificate has been granted. It is true that in section 316 of the Civil Procedure Code the grant of the certificate is made compulsory on the Court, and it has been ruled that the Court has no discretion, and that the purchaser may apply for it at any time within three years as provided in Article 178, Schedule 2 of the Limitation Act (XV of 1877). But there is considerable difference of opinion on this subject (see the rulings in Broughton's "notes of cases," page 440), and the same considerations are not applicable to revenue as to Civil Court sales. In the latter neither the Government nor the Court has any interest beyond that of the stamp revenue in compelling the purchaser to take out a certificate quickly, while in the former the security of the Government revenue renders it advisable that the purchaser should both take out the certificate and enter on possession without delay.

It would seem also that the words in section 316, "the Court shall grant," are always construed as contingent on application by the purchaser (see *Johurmul Khurba versus Taran Kisto* Deb 10 I. L. R., Cal., p. 252). It is even more necessary for a purchaser at a revenue sale to get possession than for one at a Civil Court sale, because the former has now been made, under section 56 of the Bill, liable for the Government revenue from the date of his purchase, so that he is under heavy liabilities with no corresponding power of realizing rents from raiyats.

36. It is believed that all these considerations combined will, if the Bill becomes law, operate powerfully to induce purchasers to take out certificates without delay. It may be objected that these provisions only apply to the case of *bonâ fide* purchasers who really wish to obtain possession, and that they will not secure the taking out of certificates by the classes of purchasers mentioned in class (1) of paragraph 34 above, who have either got possession already, or do not want to have it. The objection is just, but the answer to it is that in those cases the remedy lies elsewhere. Provisions against fraudulent *benami* purchases will be found in other parts of this Act; in this section the object is merely to secure the stamp revenue. Against persons who retransfer after purchase the remedy lies in the Land Registration Act (VII B.C. of 1876). Against those who purchase a diluviated estate in ignorance of the fact, no remedy is necessary; the proper course is to have the estate removed from the rent-roll. A suggestion has been made that the stamp-fee on the certificate shall be treated as part of the purchase-money, but this seems a somewhat arbitrary procedure, and hardly necessary if the provisions now inserted in the Bill prove effectual in inducing all *bonâ fide* purchasers to take the certificate without delay, as it is believed they will.

37. Section 51.—In addition to the points mentioned above, which apply to this section in common with section 50, there is another point of some importance. In some instances purchasers have demanded that the Collector shall give them possession by metes and bounds; that is, that he shall ascertain and define for them the actual boundaries of the estate, and place them in actual possession thereof. This is not required by the law, and it is difficult to understand how such an opinion has grown up. The wording of section 29 of Act XI was based on that of the former Code of Civil Procedure, Act VIII of

1859, and has in this Bill by a slight transposition of sentences been made identical with that of the present Civil Procedure Code, sections 318 and 319. It is obvious that the possession to be given to purchasers at a revenue sale was always intended to be similar in kind to that given by a Civil Court, and it might therefore be held that it would suffice to use in this section the same words as those used in the Civil Procedure Code. As, however, doubts have apparently arisen on the subject, a provision has been added limiting the duties of a Collector to giving possession in this way.

38. The question as to the precise meaning of the words "removing any person who refuses to vacate" may be answered in the same way as the preceding one, by saying that the words are to be understood in the same sense as in the corresponding section of the Civil Procedure Code. They do not imply forcible dispossession, but merely that the person in question shall be warned to vacate. Under section 331 of the Civil Procedure Code, the consequences of disobeying such a warning would be liability to a civil suit as well as to prosecution under the Penal Code. It has not been thought necessary to substitute more explicit words in this section, because what is clear enough in one Act is clear enough in another. Should the question arise hereafter, a decision of Government or the Board framed in accordance with the above remarks will probably suffice to set it at rest.

39. *Section 52.*—The words in italics complete the chain of precautions necessary to meet the difficulty raised in the case of *Lala Mobarak Lal* referred to under section 41. This difficulty is more clearly stated in the case of *Balmokond Lal versus Jirjodhun Roy*, 9 I. L. R., Cal., 271. This case is parallel to, and is quoted in the pleadings in, *Mobarak Lal's* case. In this case after quoting the words of section 8, Bengal Act VII of 1868 (on which the section of the Bill now under notice is based), the Court remarks, "this shows that any omission, informality or irregularity as regards the serving or posting of the notification would not be a ground for setting aside the sale, but it does not lay down that omission to fix the date of sale, in accordance with the provisions of section 6 of Act XI, would not affect the title of the purchaser." In other words section 8 of Act VII is insufficient, inasmuch as it is confined to the serving and posting of notices, and does not therefore cure irregularities of other kinds. The insertion of the words "for the period, at the places, and in the manner by this Act required" will, it is believed, supply the omission, the words "for the period" implying that the notice under section 6 has been issued thirty days before the date of sale. For the further quieting of all doubts as to the effect of the certificate and attestation combined, the words "and that the sale to which they refer was a sale under this Act" have been added.

40. *Sections 54 and 55.*—Difficulties have arisen in some districts in respect of the payment of surplus sale proceeds to persons other than the late recorded proprietor, as, for instance, when the late proprietor dies and there is a dispute as to succession among his relatives. In such a case it is often impossible for the Collector to decide who is the proper person to receive the amount, and if he refuses to pay any claimant he becomes liable to a civil suit. These two sections, the procedure of which has been taken from the Land Registration Act VII (B.C.) of 1876, sections 48 and 52, have been introduced to meet this difficulty. They give the Collector power to hold an enquiry and either to pay the amount to the claimant or refer the parties to the Civil Court for the settlement of their respective claims. It is further provided on the analogy of section 33 (section 74 of this Bill) that no person who has not presented an objection to the Collector shall at any future time be entitled to claim the surplus sale proceeds. The Collector will thus, it is believed, be protected from having to defend a suit in the Civil Court on a matter in which he is not interested, as under the procedure now proposed it will not be possible for a claimant to include the Collector in any suit he may institute, but only to proceed against the opposite party.

PART V.

41. *Section 56.*—The law at present (section 30 of Act XI) prescribes "that the party who is certified as the proprietor of an estate by purchase under this Act" shall be liable for the revenue from the latest day of payment. The word "certified" evidently alludes to the certificate issued under section 28 of Act XI. But it has been shown in the remarks on section 50 of this Bill, that certificates are not taken out immediately in some cases, and although it has now been proposed to alter the law so as to render the taking of certificates more binding upon purchasers than it is at present, there may still be many cases in which for various reasons the certificate will not be taken out immediately after sale, or at all. It seems therefore advisable to make the purchaser's liability for the Government revenue date from the time when he is declared to be the purchaser, and not to leave it dependent upon his taking out the certificate, a proceeding which it will still be in his power to defer. The wording has therefore been altered to meet this view. The alteration is in accordance with the Full Bench ruling of the High Court in the case of *Bhyrub Chunder Banerjee versus Sowdamin Debya*, 2 I. L. R., Cal., page 141, which is rendered applicable to revenue sales by the ruling in the case of *Chatraput Singh versus Girindra Chandra Roy*, 6 I. L. R., Cal., page 389. In the latter case also it was noted that in the present law there is no provision as to the date from which the purchaser may commence to collect rents from tenure-holders and raiyats. Section 55 of Act XI (section 63 of this Bill) provides that the defaulting proprietor may collect rents due up to the latest day of payment, and it follows that the purchaser should be entitled to collect those due after that date, but by some oversight no such provision

has been made. This omission has now been remedied by the insertion of the words "and shall be entitled to collect rents from all tenants and raiyats" which may fall due after the latest day of payment.

42. *Section 57.*—In the third section, the words in section 37 of Act XI, "talookdari and other similar" tenures, and the words "and held immediately of the proprietors of estates" have been omitted in order to give effect to the extension of the system of common and special registry which will be found fully explained on the remarks on section 64 below.

43. *Section 58.*—Has been introduced from Act VII (B.C.) of 1868, section 12. The first, second and third classes of exceptions, being the same as those attached to section 37 of Act XI (section 57 of the Bill), a reference to that section has been substituted for the full text of the exceptions to avoid repetition. In this and the preceding section the words "under-tenants" and "under-tenures," somewhat loosely used, have been replaced by "tenants" and "tenures." The debates in Council on Act XI of 1859 show clearly that the words tenure and under-tenure were at that time used indifferently to mean what in the present state of the law are known as tenures. By the definition in section 3 of the Bill, the term tenures includes under-tenures. The use of the latter term is therefore unnecessary.

44. *Section 60.*—The words in italics have been inserted with reference to the High Court ruling in *Monohur Mookerjee versus Hurmohun Mookerjee*, I. W. R., page 27, in order to make it clear that when separate accounts are opened for shares in an estate, the residue of the estate for which no separate account has been opened must also be considered as a share and not as an entire estate, with reference more especially to the rights of a purchaser as laid down in this section.

PART VI.

45. *Section 64.*—This is section 38 of Act XI. The words "Talookdaree and other similar tenures created since the time of settlement and held immediately of the proprietors of estates" have been omitted, and the single word "tenures" substituted; also after the words "for terms of years" the words "so held" have been omitted. The effect of these changes is to throw open to tenures of all sorts and classes the benefits of the system of common and special registry.

It has long been felt that adequate protection against annulment by a purchaser at a sale for arrears of revenue was not secured to tenures by the sale laws, and various expedients have from time to time been suggested and tried. In the earlier stages of the law the principle prevailed of "holding the estate of a defaulter answerable for the punctual realization of the Government revenue in the state in which it stood at the time the settlement was concluded" (Regulation XI of 1822, section 30). It was therefore prescribed that all tenures should be annulled by a sale for arrears. Consequently the purchaser acquired the estate free of all incumbrances. To prevent, however, the abuse of this principle by zemindars voluntarily causing their estates to be sold in order to get rid of incumbrances created by themselves or their predecessors, Government (section 31 of the Regulation) reserved to itself the power of putting up an estate to sale in the first instance subject to all incumbrances whenever such a course should be found necessary. In the event of such sale not producing a sufficient amount to cover the arrear, it was not to be confirmed, but a second sale with power to annul incumbrances would take place.

The provisions above mentioned were, it will be seen, made primarily with a view to the security of the Government revenue, and only in a secondary degree took into consideration the protection of the tenants.

46. The law remained virtually unaltered in the subsequent enactments, Act XII of 1841 and Act I of 1845. In the latter Act the exceptions appended to section 37 of Act XI appear, omitting the third. Farms for not more than twenty years were also included in the list of exceptions, as were also lands held by occupancy ryots. This was the state of the law down to 1859. When Act XI of that year was under discussion, the Government of Bengal proposed a somewhat important change, namely, "that all tenures in an estate, without exception or enquiry, should be allowed to hold good against an auction purchaser as long as the parent estate should be saleable at a price which would cover the arrears of revenue due from it; but that as soon as the parent estate should fail to be saleable at such a price it should be forfeited to Government and the whole of the past settlement under-tenures should be annulled; whereupon Government should proceed to form a new settlement." The framers of the Bill, on the other hand, proposed a system somewhat similar to that at present in force. The holder of a tenure created since the permanent settlement might apply to the Collector for registration; the Collector should then measure and survey the tenure, and if satisfied that its rent was sufficient to pay its share of the jumma of the estate, should register it. The effect of such registration would be to protect the tenure from cancelment under all contingencies. Of those two proposals, that of the Government of Bengal would, if adopted, have probably been more favourable to the tenure-holder than the other, because it granted security complete and absolute without any expense to tenure-holders of all kinds, except in the one event of the estate not realising at sale a sum sufficient to cover the arrears. Even in this event Government in re-entering on the estate and resettling it would most certainly have respected all existing rights so far as they were consistent with the security of the revenue. The utmost the tenure-holders would have had to fear would be some, perhaps not very large, increase of their rents. Moreover, the constantly increasing value of

anded property in Bengal would have a tendency to render more and more rare those instances in which an estate did not realise at a sale enough to pay the arrears of revenue. In practice, therefore, the proposal of the Bengal Government would probably have resulted in the most complete security to tenure-holders. The alternative proposal would also undoubtedly give equal security, but it would be rather heavily purchased, for the expense of the measurement and assessment of a tenure, with the attendant legal expenditure, must always amount to a considerable sum.

47. After protracted discussion, the system at present in force, which represents neither of the above proposals, was adopted. Two classes of registry were introduced, one of which protects talukdari and other similar tenures against all auction-purchasers at a sale except Government; the other protects them against all purchasers including Government. The first class is attended by hardly any expense at all; it is only the second which remains expensive.

The experience of more than thirty years has shown that this system has been absolutely unsuccessful. It gives protection only to tenures created by the proprietors of estates, leaving unprotected all the numerous tenures of the second and lower degrees, such as *dar-patnidars*, *dar-haqladars* and the like; and it has remained almost entirely a dead-letter, applications for common registry having been very few in number, and those for special registry almost non-existent. The restriction of registry to tenures of the first degree was apparently due to the apprehension expressed by the Government of Bengal that applications for registry would be so numerous that the Collector and his subordinates would be unable to cope with them. This apprehension, as subsequent experience has shown, was groundless.

48. Under these circumstances the Board of Revenue, in 1885, proposed to revive in a modified form the system of double sales prevalent before 1859. But on consideration there were found to be many objections to this proposal. It would undoubtedly be very much opposed by the zemindars, whose interests also must be considered, as it would very seriously affect the price realised by their estates when sold. It would deliver to the auction-purchaser an estate burdened with all sorts of incumbrances, many of which would be probably fictitious or created fraudulently by the defaulting proprietors. In the words of Mr. J. P. Grant when introducing the Bill which afterwards became Act XI, "estates might be purchased by persons in ignorance of the fraud, who would ultimately discover that they had bought a losing concern, or a bag of law suits.....he believed that a general reduction of the value of zemindari property would be the consequence."

The opinions of many of the experienced officers consulted with reference to the Board's proposal in 1885 were also opposed to the system of double sales, and powerful arguments against it in addition to those mentioned above, which it would take too much space to insert here, were adduced.

49. Turning to the laws in force in other Provinces, it appears that in the North-Western Provinces, Act XIX of 1873, section 157, provides that land sold for its own arrears is to be sold free of all incumbrances and contracts made by any one but the purchaser, except farms for less than 20 years and lands leased for houses, and the like. In Assam section 55 of the Land Revenue Regulation, 1886, provides for registry of talukdari or other similar tenures created since the Permanent Settlement and held direct from the proprietor of an estate; the very words, in fact, of section 37 of Act XI, section 71, and lays down that estates shall be sold free of all incumbrances except tenures held from the Permanent Settlement and those registered under section 55. It adds, however, one important class, namely, tenures created in good faith at rent not less than the revenue payable in respect of the land. In the Oudh Revenue Act (XII of 1876), land is to be sold free of incumbrances, except those created by the purchaser and leases of land for buildings, &c. But the system of double sales in force under Act I of 1845 is here introduced, the Chief Commissioner having power to declare that any land in arrear may be sold subject to such incumbrances as he may exempt from annulment. A second sale with power to annul incumbrances may take place if the proceeds of the first sale are insufficient to cover the arrear. On the whole, with the partial exception of the Oudh law, the tendency of recent legislature seems to be in favour of selling land free of all incumbrances except such as are of a distinct and well established nature, the existence of which can give rise to no doubts or dispute.

50. In view of the considerations recited above, the only available resource for on the one hand making over an estate to the purchaser free of all incumbrances of doubtful validity, and on the other hand securing adequate protection to *bond fide* tenants of all classes, seems to lie in an extension of the principle of registry. It may indeed be doubted—and this is a view held by several experienced officers—whether there is any practical utility in retaining the costly and always uncertain system of special registry. It must always be exceedingly difficult for any Collector to attain to the certainty that the rents of any tenure are sufficient to meet its proportionate share of the land revenue of the estate; and as purchase of an estate of any real value by Government under section 58 of Act XI in consequence of no bid sufficient to cover the arrears being made, is an event of very rare occurrence, it can hardly be said that there exists any real necessity for giving tenures protection against Government. For the present, however, the provision regarding special registry has been left untouched, as opinions regarding this point have not yet been invited; the question will doubtless receive the attention of Council.

51. In seeking for the reasons which have led to the provisions of Act XI concerning registry remaining to so great an extent inoperative, it may be observed in the first place that the classes to which protection is given by this Act are those who are least in need of it. Tenure-holders of the first grade, those, that is, who hold directly from the zemindar, are usually men of substance and local influence, and though a purchaser has by law the power of ousting them from their tenures, he finds it in practice very difficult to do so, and prefers to make a compromise of some sort with them and leave them undisturbed. The first reason therefore for the neglect of registry by tenure-holders is that they feel themselves sufficiently secure without it.

In the second place the process of registry is expensive. Under Act XI the scale of fees was very high, being 25 per cent. on the rental of tenures or farms not exceeding Rs. 500, 5 per cent. on those not exceeding Rs. 1,000, and 1 per cent. on all above that amount.

By Bengal Act III of 1862 the scale of fees was lowered to 5 per cent. on the rental of tenures or farms up to Rs. 1,000, and 1 per cent. on all above that amount. Even this, however, seems high, and the reduction of the rate which affects only the smaller tenures has not had the effect of inducing tenure-holders to register more freely than before.

Thirdly, section 45 of Act XI as it originally stood required that tenures then existing should be registered within three years of the passing of the Act, and tenures created subsequently within three months of their creation. By Bengal Act III of 1862 the time for registering tenures existing at the time of the passing of Act XI was extended to three years from the passing of Act III of 1862, that for registry of tenures created between the passing of Act XI and that of Act III to three months from the latter date, and all tenures created subsequently to three months from date of creation. At present therefore no old tenures, but only those created within the last three months, can be registered. The vast majority of tenures are thus excluded from the protection afforded by the law, and that too in most cases not from the *laches* of the present holders, but that of their predecessors.

52. To carry out therefore effectually the extension of the system of common registry and, if it should still be thought worth while, of special registry also, it is necessary, *first*, to remove from the text of the Act all words limiting or defining tenures or under-tenures; *secondly*, to abolish the limitation as to the time within which tenures can be registered; and *thirdly*, to reduce the fees for registry to a moderate amount. Thus all tenures of every grade and kind will be susceptible of being registered at any time, and at a cost, excepting special registry, which is within the means of the poorest. If after this tenure-holders still do not protect themselves by registry, they will be without excuse, as the law gives them every facility for so doing.

53. *Section 66.*—In the *statute* particular appended to this section, the words in italics have been added to guard against the abuse of the extended system of registry by applications being made for registry of invalid tenures; either the deed constituting the tenure must be produced, or if, as sometimes happens, the deed has been lost, proof that the tenure has been in existence for the period of twelve years fixed by Article 121, Schedule II of the Limitation Act. It has also been prescribed that such deed or proof shall be submitted for the Collector's inspection, and in section 67 it is further provided that the Collector shall consider such proof and grant or refuse registry according as he is satisfied or not. These provisions, it is believed, will effectually guard against fraudulent registry of unauthorized tenures. The mere issue of a notice to the proprietors, a procedure which might have been sufficient when only the greater tenures could be registered, will hardly be of any use now, as a zemindar would probably be unable or unwilling to contest every petty case that may now arise.

54. *Section 71.*—Has been introduced from the Partition Act (Act VIII B.C. of 1876), as the matter to which it refers seems more appropriate to this Bill.

55. *Section 75.*—This section gives effect to the general extension of the system of registry by enabling tenures to be registered at any time, provided the deeds constituting them (when there are any) have been properly registered under the Indian Registration Act of 1877.

PART VII.

56. Calls for no remarks. No changes have been made in this part of the law.

PART VIII.

57. *Section 82.*—This has been introduced from Act VII (B.C.) of 1868. The wording has been slightly amplified, and a necessary explanation added from section 78 of the Civil Procedure Code.

58. *Section 83.*—Section 49 of Act XI contained merely a general provision that the subordinate revenue authorities should act in accordance with instructions received from the superior revenue authorities in respect of the registration of tenures. But this seems hardly in accordance with the more accurate instructions common in recent legislation. It was also to a certain extent superfluous, as the subordination of officers of lower rank to those above them is a general principle hardly needing to be specifically enunciated. Definite provisions regarding appeals have therefore been substituted, and power has been given to the Collector

to refer cases for decision to his subordinates. The latter part of section 40 relating to revision of Commissioner's orders in special registry cases has been put into a separate section (section 84 of the Bill).

59. *Section 89.*—This is section 9 of Act VII (B.C.) of 1868. It has been inserted provisionally at the end of this Bill, as it is very doubtful whether it is necessary to retain it at all. It is a section to remove doubts as to the validity of certain sales of lakhiraj tenures which appear at some time or other to have been held under Act XI. The circumstances under which such sales were held cannot now be traced, and it is not probable that any such sales would be held in the present day. The repeal of this section would not re-open the question, should any such arise, of the validity of past sales, as such action is provided against in section 2 of this Bill. It would seem therefore that the section might fairly be treated as obsolete. The subject, however, deserves consideration.

JOHN BEAMES, C.S.,
On Special Duty.

AWARD OF A SCHOLARSHIP BY KAZI SYED REZA HUSSAIN,
KHAN BAHADUR.

GENERAL DEPARTMENT.

Calcutta, the 19th June, 1890.

RESOLUTION.

READ—

A letter from the Commissioner of Patna, No. 348J, dated the 10th June, 1890, and its enclosure, regarding the offer of an award of a scholarship by Kazi Syed Reza Hussain, Khan Bahadur, of Patna City.

Kazi Syed Reza Hussain, Khan Bahadur, of Patna City, has offered to invest the sum of Rs. 3,300 in Government security for the purpose of founding a scholarship of Rs. 11 a month from the interest thereof in commemoration of the visit of His Royal Highness Prince Albert Victor to India, the scholarship to be called the "Syed Reza Hussain Scholarship," and to be awarded to the best Mahomedan B.A. student (Behari by birth) of the Patna College or any other College in India to which such student may be transferred. The Lieutenant-Governor is pleased to accept the offer, and tenders his thanks to the donor for his liberality.

ORDER.—Ordered, that a copy of this Resolution be forwarded to the Commissioner of Patna for information and for communication to the donor, and to the Director of Public Instruction for information.

Ordered also, that a copy of this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

Secretary to the Govt. of Bengal.

RESOLUTION ON THE ADMINISTRATION REPORT OF THE JAIL DEPARTMENT FOR THE YEAR 1889.

RESOLUTION.

JAILS.

Dated Darjeeling, the 18th June 1890.

READ—

The Report on the Administration of the Jail Department for the year 1889.

Read also—

The Reports for the years 1887 and 1888, and the orders of Government recorded thereon.

Dr. Purves officiated as Inspector-General of Jails from the 1st January to the 30th April, when he went on furlough, and was relieved by Mr. A. D. Larymore, who acted up to the 14th May. Dr. Lethbridge returned from special duty and took charge of the Department from the 15th May. He was on privilege leave from the 18th July to the 15th August, during which period Mr. Larymore again acted for him. The annual report has been submitted with the usual punctuality, and is as concise as the importance of the subjects dealt with will allow.

2. *Judicial Statistics.*—The total jail population at the beginning of the year was 13,985. The total number of admissions during the year rose from 81,136 to 84,639, the largest number admitted since 1879. The increase occurs in the number of convicts and under-trial prisoners, while the number of civil prisoners fell from 1,502 to 825, the reduction being due to recent changes in the law. There remained 15,048 prisoners in jail at the close of the year. The figures of the previous year's population were undoubtedly slightly affected by the Jubilee releases of 1887, and those for this year are not above the average of the five years from 1881 to 1886. The following table shows the figures for convicts only for the last ten years:—

	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Number of prisoners in jails and subsidiary jails on the last day of previous year	17,200	16,284	13,231	14,377	13,417	14,051	13,821	13,405	11,950	13,821
Admitted direct during the year	33,535	31,435	31,719	29,763	32,684	31,530	30,675	29,642	30,936	33,542
Admitted by transfer	50,635	47,740	46,941	44,140	43,411	45,581	44,496	43,497	42,945	46,363
Total	18,811	17,694	15,769	15,409	16,600	17,965	17,372	15,497	20,185	29,053
Deduct transferred	69,346	64,843	62,701	59,639	62,111	62,840	61,808	60,834	63,150	66,416
.. released	18,644	16,810	13,548	15,274	16,610	17,360	17,158	16,725	19,798	19,583
.. escaped	33,239	31,664	33,701	30,173	30,707	30,791	30,701	30,700	29,805	32,310
.. died	12	14	6	12	9	3	11	6	14	4
.. executed	1,094	1,065	1,084	728	691	838	616	363	571	626
Total discharged	73	89	35	38	43	33	17	30	21	17
Balance at the end of the year	53,068	49,012	48,324	46,222	48,060	49,023	48,403	47,884	50,300	62,540
Daily average number of prisoners	16,673	15,500	14,801	13,711	13,697	13,757	13,504	10,908	12,378	13,591

It will be noted that the number of direct admissions (33,542) in 1889 is the highest that has been recorded since 1879, and that the daily average number of convicts rose from 12,378 in 1888 to 13,591 in 1889. The increase is stated to have been mainly due to the large number of convictions for theft and other minor offences against property prompted by the high prices of food-grains. The following statement of offences against property in the Patna Division, in which considerable scarcity prevailed during the year under report, fully supports the view expressed by the Inspector-General of Jails, and the detailed figures of such crimes in the districts of Mozufferpur, Chumparun, and Durbhunga, which were more especially affected by the failure of crops tend still further to bear it out:—

NAME.	1889.			1888.		
	Cases of burglary ascertained to be true.	Cases of theft ascertained to be true.	Admissions to jail.	Cases of burglary ascertained to be true.	Cases of theft ascertained to be true.	Admissions to jail.
Patna Division	7,573	4,927	3,282	5,949	4,130	2,814
Mozufferpur district	850	633	330	387	407	241
Durbhunga	1,572	724	338	995	430	210
Chumparun	901	1,159	616	581	537	363

The proportion of the daily average number of convicts confined in central jails to the total daily average population was 53·68 per cent. against 57·40 in the preceding year. The district and intermediate jails held 43·68 per cent. of the population, the corresponding ratio for the previous year being 39·96. The percentage of the population of subsidiary jails (2·64) was the same as in 1888. The decrease in the percentage of convicts confined in central jails was the result of the recommendations of the Jail Committee for increasing the sleeping space for each prisoner. Most of the district and intermediate jails had accommodation for a larger number of prisoners than they had been holding, but this was not the case with the central jails, which were consequently most affected by the orders in question. In consequence of the large population of the Purneah intermediate jail, and the insufficiency of the staff sanctioned for such jails to control this convict population, the Inspector-General of Jails has proposed its reconversion into a district jail. Dr. Lethbridge is also anxious to reconvert some other of the intermediate jails into district jails, but the Lieutenant-Governor would prefer to wait until the effects of the late scarcity have passed away before dealing with this question on a large scale.

3. The number of convicts released on expiry of sentence rose from 26,452 in 1888 to 28,754 in 1889; the admission of a large number of prisoners with short sentences, which terminated during the year, accounts for the increase. The number released on appeal fell from 1,980 in 1888 to 1,942 in 1889. There had been a steady increase in the number of such releases since 1882, and the slight decrease of last year, although it occurred in a year of numerous admissions, does not show any marked improvement in what is an unsatisfactory feature in the criminal administration of Bengal. The subject will come before the Lieutenant-Governor again when the report on crime in the Lower Provinces comes up for review. There were 1,575 releases under the mark rules as compared with 1,352 in 1888, which shows that the disturbing element in the working of the mark system introduced by the exceptional releases of the year 1887 is beginning to disappear. Thirty-seven prisoners were released on medical grounds against 33 in the previous year, and only two convicts were set free on other grounds as compared with 88 in 1888, when many were released in consequence of special remissions granted to them on the occurrence of Her Majesty's jubilee.

4. The number of convicts transported beyond the seas rose from 797 in 1887 and 803 in 1888 to 829 in 1889. The steady increase is due to the relaxation of the rules regulating the selection of convicts for deportation. The number of prisoners belonging to this Province, who were transported in 1889, was 119 against 97 in 1888. Executions, of which there were 21 in 1888, fell in 1889 to the unusually small number of 17.

5. There were 404 Burman convicts in jail on the 31st December 1888, and 200 were admitted during the year under review, bringing the total to 604. Their conduct in jail has been on the whole good, and, notwithstanding the large increase in their numbers, the offences recorded against them during the year only increased from 434 to 455, of which 271 related to work. One of the convicts was sentenced to capital punishment for having murdered another Burmese prisoner, a convict overseer, and there was another case of serious assault, in which a Burman attacked a Bengali prisoner, but the measures immediately taken prevented him from doing much harm. The Burmese are a dangerous class of prisoners on account of their instability of character, their impulsive nature, and their great impatience of restraint, but their capacity for work is superior to that of other native convicts, and the Superintendents are naturally inclined to appoint them freely to jail offices. It is not, however, safe to have a large proportion of these men as overseers and convict warders, for even holding offices of trust is not sufficient to restrain their longing for freedom. The Jail Committee have therefore proposed the introduction of a ticket-of-leave system for them, a measure which has been advocated by this Government for the last three years. The question is now under the consideration of the Government of India.

6. Of the convicts admitted during the year, there were 60·95 per cent. Hindus, 34·70 per cent. Mahomedans, 1·24 per cent. Christians, 0·36 per cent. Buddhists and Jains, and 2·75 per cent. of all other religions. The corresponding figures of the previous year are 60·57, 35·60, 1·19, 0·50, and 2·14. The

number of juveniles admitted in 1889 was 434 against 306 in the preceding year. Both the Reformatory Schools at Alipur and Hazaribagh continue to do excellent work.

7. The number of prisoners sentenced to simple imprisonment rose from 2,143 to 2,434, of those to rigorous imprisonment only from 28,716 to 30,949, and of those to rigorous imprisonment with whipping from 72 to 117, but only 42 prisoners were sentenced to rigorous imprisonment with solitary confinement against 64 in the preceding year. No explanation of the increase in the number of prisoners punished with simple imprisonment has been given, and further enquiries will be made as to the very large number of such sentences in Singbhum (83), Manbhum (60), Puri (59), Cuttack (59) and Patna (79). The number of female convicts increased from 1,218 in 1888 and 1,280 in 1887 to 1,503 in 1889. The number of re-convicted prisoners fell from 3,612 in 1888 to 3,561 in 1889; the recent rules regarding the identification and classification of habitual offenders have been worked with great care both by the Jail and Police Departments; still the Lieutenant-Governor thinks that much more remains to be done. The Inspector-General's investigations in the central jails have led him to the conclusion that there are in those establishments 300 or 400 incorrigible thieves, for whom transportation for life is the only punishment likely to be effective. At the suggestion of the Inspector-General, the Government of Bengal has lately recommended to the Government of India that experiments should be made in the Presidency and Alipur Jails in the system of anthropometry which is said to be so successful a feature of jail administration in the city of Paris. The number of persons imprisoned for failing to give security for good behaviour had been increasing somewhat rapidly since 1884, but the last year shows for the first time a slight decrease, viz., 1,066 against 1,070 in 1888. Of the total number of prisoners admitted during the year, 87.04 per cent. were unable to read and write, 9.48 per cent. were able to read and write a little, and 3.48 per cent. were able to read and write well. The figures of the previous year were 86.64, 10.21 and 3.15 respectively. In the year under review 1,528 judicial sentences of whipping were inflicted against 1,234 in 1888; the number of boys whipped increased from 394 to 485.

8. There were 30,219 under-trial prisoners admitted during the year against 28,454 in 1888. Of these 11 escaped during the year and six remained at large at the close of the year. The number of deaths among the under-trial prisoners rose from 43 in 1888 to 61 in 1889. The daily average number of under-trial prisoners increased from 1,255 in 1888 to 1,379 in the year under report, and the even distribution of these deaths among the various jails of the province does not suggest any particular cause for the increased mortality. The report shows for the first time the average period of detention of under-trial prisoners in Sessions cases separately. The longest period of detention (109.41 days) among these cases occurred in the district of Julpaiguri, and there was a detention for over two months in seven other districts. The tabular statement of these figures which is given is interesting, but shows unsatisfactory results. The average period of detention was 45.81 days in Sessions cases and 13.44 in others. The number of civil prisoners admitted was only 825 against 1,502 of the previous year; this large decrease is attributed to the alteration in the civil laws, which took effect in May 1888. It is remarkable that with a daily average of 54.49 civil prisoners there was only one death.

9. *Jail buildings.*—The total expenditure on jail buildings during the year amounted to Rs. 2,37,214 against Rs. 2,40,244 in 1888. In the Presidency Jail Rs. 35,220 were spent on the construction of corrugated iron work sheds, a new civil ward, and on other improvements. In the Bhagalpur Central Jail Rs. 10,173 were expended in building a double-storied barrack and improving the jailors' quarters, and at Dacca Rs. 7,736 were expended on the work of constructing double-storied barracks. At Buxar a house for the Deputy Superintendent and a godown for storing rations and clothing were built; these and other improvements were carried out at an aggregate cost of Rs. 19,664. At Khulna and Purulia Rs. 4,694 and Rs. 2,564 were respectively expended in making additions and alterations to the existing jail buildings, and the temporary wards at Faridpur were furnished with corrugated iron roofs at a cost of

Rs. 2,424. A sum of Rs. 53,822 was expended in constructing six subsidiary jails and a new intermediate jail, and in making improvements in other subsidiary jail buildings. The daily average number of prisoners employed on jail buildings was 1,316 against 1,324 in 1888.

10. *Guards and escapes.*—The total number of warders and head-warders employed in jails and subsidiary jails during the year was 1,587 against 1,584 in the preceding year. It is possible that this staff may have to be increased by the ultimate reconversion of some intermediate jails into district jails, but for the present the increase in the population of those jails may be met by temporary additions to the force of warders until it has been ascertained whether the general tendency to decrease, which has been observable for some years, has been permanently checked or only casually interrupted during a year of scarcity. The general improvement in the appearance and efficiency of the warder guard has been noticed by the Lieutenant-Governor with great satisfaction during his tours of inspection; the offences committed by warders (2,504 as against 1,815 in 1888 and 2,359 in 1887) are still very numerous, but the large number reported under the heads of 'absence from duty,' 'neglect of duty' and 'backwardness in drill' shows that the increase is due to a great extent to the enforcement of stricter discipline.

11. There were only 11 escapes during the year as compared with 21 in 1888 and 13 in 1887. This is the lowest number on record, and is very satisfactory. The only case which calls for notice is that of the two European prisoners who escaped from the Presidency Jail by breaking locks and climbing the outer main wall from a cross wall which was then under construction. They were eventually recaptured by the Calcutta Police and placed on their trial before the Chief Presidency Magistrate, who sentenced them to seven days' rigorous imprisonment. The extraordinary leniency of this sentence, which was, in the Lieutenant-Governor's opinion, wholly inadequate as a punishment for the grave offence committed, had a demoralising effect on the other prisoners in the Presidency Jail, and it is much to the credit of the officials of that jail that they were able to prevent the recurrence of such escapes. The warders who were responsible for the escape were punished departmentally. Of the 11 prisoners who escaped, seven were recaptured; besides these, four of those who had escaped in previous years were apprehended.

12. *Prison discipline.*—The very important recommendations of the Jail Committee on the subject of the classification and punishment of jail offences, though approved generally, still await the final orders of the Government of India. They will considerably modify future returns on the subject, and, by separating serious from trivial offences, help to make the record of such offences more intelligent and more uniform throughout British India. Despite the increase in the daily average population of the jails, there was a decrease in the number of offences committed from 29,064 in 1888 to 25,107 in 1889, the percentage to that daily average population falling from 234·8 to 184·8; the decrease occurred under every head of breach of jail discipline. Punishments by criminal courts rose from 29 in 1888 to 40 in 1889, and the punishment of reduced diet was awarded in 563 cases against 525 in 1888. Of prisoners punished with solitary confinement, 1276 suffered that punishment only, while 318 more received reduced diet in addition; in 1888 the respective numbers were 1,295 and 352. There was an increase from 245 to 272 in the cases in which corporal punishment was inflicted, and it is a matter for regret that in spite of the repeated orders of Government cases in which less than 10 stripes were awarded should still occur. There were 204 cases of corporal punishment in central jails, where all long-term prisoners and bad characters are confined. Fetters were imposed as a punishment in 7,793 cases against 8,759 in 1888, and in 119 cases they were used for safe custody.

13. Of the total daily average number of male convicts in 1889, 5·70 per cent. were employed as convict officers, as compared with 5·93 per cent. in 1888. The convict officers are reported to have worked excellently during the year, and they seem to have understood that only continuous good behaviour on their part could secure them promotion to the higher grades. The percentage of punishments to the average number of convict officers was 209·2 in 1889 against 200·7 in 1888.

14. The new mark rules, which have been in force since 1887, have continued to work satisfactorily, and the results show that 1,572 prisoners against 1,352 in 1888 had their releases accelerated in consequence of the marks which they had obtained. In the case of prisoners who were undergoing sentences of less than eight years' imprisonment there was a marked increase in the average remissions earned, but the prisoners for longer terms were less successful, because of these a larger proportion become convict warders, their responsibilities are increased, and they are more frequently punished with loss of marks than the ordinary convict overseers are. This is a matter which will doubtless receive the Inspector-General's attention; it does not appear desirable that promotion should involve a disadvantage.

15. *Expenditure.*—The gross expenditure for all classes of jails, excluding the amount expended by the Public Works Department, rose from Rs. 10,68,161 in 1888 to Rs. 11,91,149 in 1889. The average cost per prisoner amounted to Rs. 79-4-5 against Rs. 77-12-8 in 1888. The charges on account of dieting prisoners rose from Rs. 2,95,68⁰ in 1888 to Rs. 3,89,300. The increase was owing partly to the larger daily average population, and partly to the high prices paid for food-grains. The average value of the chief articles of diet per maund amounted to Rs. 3-14-6 in 1889 against Rs. 3-8-11 in 1888. The increase in the price of rice alone, which is the staple food of the country, was 8 annas and 8 pies per maund as compared with the preceding year. Granaries are now under construction in jails for the storage of grain to be purchased in the cheap season of the year, and arrangements are in progress for the proper cultivation of jail lands and gardens, and for the breeding of fish in jail tanks, and dairies have been started in many jails. It is hoped that these measures will tend to make a considerable reduction in the cost of dieting prisoners during the current year. The total earnings from vegetables and other products supplied from the jail gardens during the year amounted to Rs. 47,827 against Rs. 36,284 in 1888. This result is satisfactory and shows that the matter is receiving greater attention from the Jail authorities.

16. The cost of establishment fell from Rs. 3,95,224 in 1888 to Rs. 3,91,292 in 1889. Four of the jailors, whose appointments had been abolished on the conversion of certain district jails into intermediate jails, were transferred to the Registration Department during the year under report, and one retired. The hospital charges increased from Rs. 46,632 to Rs. 56,464; the increase is partly due to the rise in the prices of food-grains, and partly to the more liberal scale of diet now allowed to sick prisoners. The total cost of clothing rose from Rs. 58,309 to Rs. 70,011 on account of the greater number of prisoners admitted during the year, the clothing for many of whom had to be obtained in the local markets. The clothing has hitherto been manufactured by jail labour, but charged to the Department at the market rates, but this practice has now been done away with, and the cost of raw materials only will henceforth be debited to the Jail Department. The cost of contingencies also rose from Rs. 1,09,213 in 1888 to Rs. 1,28,168 in 1889. There was an increase of Rs. 6,455 on account of municipal taxes on jail buildings, and Rs. 1,083 in the cost of dieting defendants. Rupees 2,028 were paid during the year as compensation for land acquired for the extension of the jail garden at Dacca.

17. The total average cost per head on account of diet, hospital charges and clothing rose from Rs. 29-13-8 in 1888 to Rs. 34-13-11. The Buxar Central Jail was very economically managed, and the Lieutenant-Governor observes with satisfaction that in seven intermediate jails and four district jails, which have been specially noted by the Inspector-General, unusual care and economy were evinced by the officers in charge. In Mymensingh and Gya increased expenditure is accounted for by the unhealthiness of the prisoners, and in only two cases has Dr. Lethbridge found it necessary to call for explanations from the officers concerned of apparent extravagance in management.

18. *Employment of prisoners, and manufactures.*—The total average number of prisoners sentenced to labour increased from 12,210·17 in 1888 to 13,393·69 in 1889. Of these 5,569·45 or 45·58 per cent. were employed on manufactures, against 5,368·39 or 43·96 per cent. in the preceding year, and 15·3 per cent. were sick, convalescent or infirm against 13·9 per cent. in 1888. The average number of prisoners employed as convict officers and servants, and on gardening and other prison duties was 4,152·38 or 31·0 per cent., against 3,488·35 or 28·5 per cent. in 1888. The net cash earnings increased from Rs. 2,66,898 in 1888,

or Rs. 49.12 per head on the average number of convicts employed on manufactures, to Rs. 3,98,530 in 1889; or Rs. 71.9 per head. The total profits on the year's working amounted to Rs. 2,60,096, or Rs. 19.7 per head, as compared with Rs. 2,69,564, or Rs. 22.1 per head in 1888.

19. The average earning of each prisoner in central jails is shown in the following table:—

	1889,	1888,
Presidency	68.4	73.0
Alipur	44.4	43.7
Bhagalpur	21.8	10.5
Midnapur	11.2	15.1
Rajshahye	4.5	12.4
Dacca	3.0	3.7
Buxar	0.9	21.3

The decrease in the earnings of the Presidency Jail was due to the reduction in the quantity of printing work required to be executed during the year. The jute mill in the Alipur Jail is now wholly employed in supplying the requirements of public consuming departments. The indifferent health of the prisoners in the Midnapur Jail affected the earnings to a considerable extent. The castor-oil industry in the Rajshahye Jail was at a standstill for six months during the past year owing to a sudden rise in the castor seed market. The decrease in the profits of the Buxar Jail is combined with a very large increase in the amount and value of the work turned out by it, and is wholly due to the very low rates given by the Ordnance and Commissariat Departments. His Honour trusts that the hopes expressed that better rates will be obtained in the current year may prove well founded, as it is much to be regretted that the prisoners in a large jail, such as the one at Buxar, should be almost exclusively employed on unremunerative labour. The stock of manufactured articles at the end of the year considerably diminished, the stock in hand on the 31st December 1889 being valued at Rs. 1,86,706 as against Rs. 2,66,106 at the close of 1888.

20. *Subsidiary Jails*—The Lieutenant-Governor is not satisfied that the Superintendents of Subsidiary Jails visit them a sufficient number of times, or take a sufficient interest in their working. It is to be hoped that this will be remedied in the future, and that especial attention will be paid to the nature and amount of work given to labouring prisoners confined in them in order that it may be ensured that penal labour is imposed on them. The amount expended during the year on subsidiary jail buildings was Rs. 69,481, against Rs. 70,106 in 1888. New buildings were substituted for the old ones in six subsidiary jails, besides the erection of a new intermediate jail at Nya Doomka. The condition of the warder guard was on the whole satisfactory. The average period of detention of convicts in subsidiary jails was 8.52 days against 8.21 days in 1888. The longest detention occurred in the Khondmal, Angul, and Bhola subsidiary jails. From the Khondmal and Angul jails the prisoners could not be transferred owing to an outbreak of cholera in an epidemic form in the Cuttack Jail, to which the subsidiary jails are affiliated. At Bhola the prisoners were employed on work connected with the new subsidiary jail buildings. The average detention of under-trial prisoners during 1889 was 13.92 days against 14.11 days in 1888. In Serajganj, Chandpur, Arrareah, and Silliguri under-trial prisoners were detained for periods varying from 26.30 to 21.79 days. This excessive detention will be enquired into and dealt with in the Judicial Department. There were 14 escapes against 19 in 1888. Of those who escaped four were convicts and ten under-trial prisoners. All the convicts and four of the under-trial prisoners were recaptured during the year. A most daring escape was effected by two under-trial prisoners from the Serampur subsidiary jail. They contrived to unhook the iron rod on which the hurricane lantern was hung which served to light the ward in which they were confined at night. With this they made a hole in the masonry wall of the building, and then escaped over the outer wall while the sentry was asleep. Excluding the expenditure in the Public Works Department, the average cost per prisoner in the subsidiary jails rose from Rs. 121.6.7 in 1888 to Rs. 122.5.6 in 1889, the increase being chiefly due to the high prices paid for articles of food.

21. *Vital Statistics.*—During the year Dr. Lethbridge issued the orders necessary to carry out the suggestions of the Jail Committee for providing sufficient superficial area and capacity for each prisoner in the sleeping wards of the jails throughout the province. In the case of barracks in which the prisoners sleep more than four deep between ventilating openings, the space was increased to 100 square feet and 1,200 cubic feet per man from 50 square feet and 750 cubic feet, the minimum space recommended by the Jail Committee for unhealthy jails. The measures taken by Dr. Lethbridge have resulted in materially reducing the accommodation in the old jails which have more than two rows of beds in the sleeping wards, while the accommodation in healthy jails and in the wards of unhealthy jails which are raised 12 to 14 feet off the ground, has been much increased by reducing the space to 36 square feet and 540 cubic feet in accordance with the recommendation of the Jail Committee. Calculated on the revised scale there was accommodation available in the central, district and intermediate jails for 16,335 convicts against 17,008 in 1888 and 17,433 in 1887. There was thus ample accommodation for the 13,232 convicts who represent the daily average strength in 1889, but, as it was not found possible during the year to distribute these men over the several jails according to their capacity, there was some excess in a few of the jails, where the extra prisoners were made to sleep in worksheds and other temporary structures. In the Maldah and Palamow intermediate jails, however, there was real overcrowding, as no temporary extra accommodation was available, and measures have been taken to increase the sleeping accommodation so as to obviate any chance of a recurrence of this overcrowding. Among the undertrial prisoners the female ward in the Hughli Jail was at one time overcrowded, but arrangements are being made for enlarging the capacity of this ward.

22. The sickness and mortality of convicts and under-trial prisoners for the past ten years are shown in the following statement:—

YEARS.	Daily average number of prisoners.	Daily average sick.	Ratio per mille of daily average sick.	NUMBER OF DEATHS.			DEATH-RATES PER MILLE OF AVERAGE STRENGTH.			REMARKS.
				From cholera.	From all other causes.	Total number of deaths.	From cholera.	From all other causes.	From all causes.	
1880	17,802	941	52.8	51	1,100	1,151	1.7	61.8	63.5	Convicted and under-trial only.
1881	16,529	875	52.8	85	1,014	1,099	5.1	61.4	66.5	
1882	15,942	849	53.3	121	933	1,054	9.5	59.0	68.5	
1883	14,776	720	48.7	61	701	762	4.1	47.4	51.5	
1884	14,808	724	48.8	62	678	740	4.1	45.6	49.7	
1885	14,926	778	51.7	157	734	891	10.5	48.9	59.4	
1886	14,579	648	44.4	40	503	543	2.7	34.5	37.2	
1887	12,047	539	44.7	29	379	408	1.7	31.4	33.1	
1888	15,634	631	40.4	182	482	664	9.7	36.3	46.0	
1889	14,971	695	46.4	132	555	687	8.8	37.0	45.8	
Total	120,625	7,402	49.8	871	7,075	7,946	57.9	461.9	519.8	
Average	15,002	740	49.0	87	707	794	5.7	46.1	51.9	

The absence of any improvement in the death-rate is mainly attributable to the fact that the health of the prisoners admitted during the year was greatly affected by the general poorness of the crops in many parts of the province. The jails in which the proportion of the daily average sick per mille of average strength was very high were Palamow (111.1), Singbhum (100.7), Gya (100.1) and Midnapur (82.2). The unhealthiness of the Palamow Jail was due more to overcrowding than anything else, and the necessary steps have been taken to remedy this defect. The Singbhum Jail shows some improvement compared with the statistics of the previous year. In consequence of the high mortality in the Gya Jail in 1888, and during the first quarter of 1889, the Lieutenant-Governor appointed a Committee to enquire into its causes, and the officers forming that Committee expressed their opinion that the deterioration in the health of the jail population was due to the general unhealthiness of the district. Sir Stuart Bayley is pleased to observe that the jail is now reported to be perfectly healthy. The Midnapur Jail has been particularly unhealthy for the past two years, especially during 1889, when the proportion of the daily average sick increased from 42.9 in 1887 and 71.4 in 1888 to 82.2, and the death-rate from

34.6 in 1887 and 44.5 in 1888 to 77.2. The receipt of a large number of prisoners in bad and indifferent health from the neighbouring districts was one of the chief causes of the unhealthiness during the past year, and, in spite of the efforts made to improve the condition of the jail, a large number of deaths occurred from chronic diseases of malarious origin. Some improvement has since been effected, but the jail still remains very unhealthy and requires special vigilance.

23. Cerebro-spinal fever proved very deadly during the past year, 19 out of the 27 cases which occurred proving fatal. There were 13 cases with 10 deaths in the Hazaribagh Jail, and 8 cases with 4 deaths in the Alipur Jail. Rajshahye had 4 cases with 3 deaths, and the 2 cases which occurred in the Mymensingh and Jalpaiguri Jails ended fatally. The disease first made its appearance in the Alipur Jail in 1885, and the Committee appointed in 1886 to investigate its origin attributed it to overcrowding and defective ventilation in the sleeping barracks. Notwithstanding the measures which were promptly adopted to remove these defects, it has appeared from time to time in a sporadic form. The experience of the past year, during which the disease suddenly appeared in virulent epidemic form at Hazaribagh, where there is not the least overcrowding, and as suddenly disappeared, has raised a doubt as to whether the origin and causes of the disease have yet been accurately determined. The Superintendent, Dr. Moorhead, has submitted a very careful and elaborate report on the symptoms and course of all the cases in Hazaribagh, which should be of great use in determining the nature and causes of this very fatal disease. The Lieutenant-Governor has accordingly decided that another special enquiry should be held in the matter, and has appointed a Standing Committee to meet at the Alipur or Presidency Jail on the occurrence of every case of cerebro-spinal meningitis in those jails or in any of the other Government institutions in their vicinity. The Committee have been directed to submit their report at the expiration of a year. Of the 132 prisoners that died from cholera, 117 were convicts and 15 under-trial prisoners. The largest number of cases occurred in the Cuttack, Dacca, Buxar, Mymensingh, Chittagong, Midnapur, Rajshahye, and the Presidency Jails. Sites have been provided near all jails for the camping out of prisoners on the outbreak of cholera in an epidemic form, and a sufficient number of tents and extra fetters have been kept in stock for the purpose. There were 9 cases of small-pox with 2 deaths. In the Mymensingh Jail 19 prisoners suffered from the beriberi disease, of whom 16 had been received in the jail in bad or indifferent health.

24. The total number of deaths among convicts was 626, or 46.0 per mille, against 571, or 46.1 per mille, in 1888. Of this number, 590 died in jails, of whom 209, or 35.42 per cent., were received in good health, 207, or 35.08 per cent., in indifferent health, and 174, or 29.49 per cent., in bad health. In the subsidiary jails there were 33 deaths (19 from cholera and 14 from other causes) against 18 in 1888. Out of the 19 deaths from cholera, 16 occurred among the prisoners at Angul, where the free population suffered severely from scarcity of food. The death-rate among convicts in the subsidiary jails was 91.9 per mille against 54.9 in 1888, but the large increase is wholly due to the deaths from cholera mentioned above. Excluding the deaths from cholera, the following jails show the highest death-rate:—Jalpaiguri (179.4), Singbhum (117.3), Palamow (102.6), and Hazaribagh (92.5). In the Jalpaiguri Jail, 10 convicts died against 2 in the preceding year. The increase in the death-rate does not appear to have been due to any want of care on the part of the Superintendent. There were 6 deaths among convicts in Singbhum, against 10 in 1888, and the high percentage is due to the comparatively small average population. A similar remark applies to the mortality in the Palamow Jail. Of the 19 deaths that occurred in the Hazaribagh Jail, 10 were from cerebro-spinal fever. Of the remaining prisoners who died, 6 belonged to a batch of 15 prisoners received from the Palamow Jail. These prisoners were in bad health and should not have been transferred. They were also grievously neglected by the police who were in charge of them on their way to the Hazaribagh Jail. Both the Assistant Surgeon in medical charge of the Palamow Jail, and the head-constable in charge of the convicts in transit, who were directly responsible for this mismanagement have been punished. The following table

shows the extent to which prisoners discharged from jails in 1889 improved in health during their residence in jail:—

	1				2			
	State of health on admission of those who were discharged from jail as per column 2.				State of health on discharge of those who were discharged from jail as per column 1.			
	Good.	Indifferent.	Bad.	Total.	Good.	Indifferent.	Bad.	Total.
In 1889	23,113	10,110	3,009	36,232*	25,780	7,808	1,575	35,163*
Ratio per cent. to total number discharged from jails	63.80	27.91	8.29	100.00	73.93	21.72	4.35	100.00

* Excluding the figures for the Bogra intermediate jail for first four months and those for the Palamow intermediate jail for the whole year.

The return is satisfactory. Of the convicts discharged during the year, 19.6 lost weight in jail against 20.6 per cent. in 1888, and 19.3 per cent. in 1887.

25. *Inspections.*—Dr. Purves inspected 11 jails and 4 subsidiary jails, and Dr. Lethbridge 35 jails and 5 subsidiary jails. The Lieutenant-Governor is glad to see that there was a slight increase in the number of visits paid by Judges and Magistrates to the jails within their charges, but notices with regret a falling off in the number of visits paid by non-officials. His Honour attributes considerable importance to these visits and to the record of inspection remarks by gentlemen who can be suspected of no professional or official bias in the matter, and trusts that the report for 1890 will show that the interest taken throughout Bengal by non-official gentlemen in the management of the jails of the province is not in any danger of dying out.

26. The Lieutenant-Governor notices with pleasure that a large number of officers have been favourably mentioned by Dr. Lethbridge, and his special commendation of certain officers will be noted in the Appointment Department. His Honour is also glad to observe that the medical officers in charge of central jails have taken a lively interest in the health of the prisoners; Dr. E. G. Russell deserves special mention for his excellent management of the Rajshahye Central Jail. The thanks of Sir Stuart Bayley are due to Dr. Lethbridge for his efficient administration of the Jail Department, which is one of the most difficult and important branches of the public service.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Inspector-General of Jails for information and guidance.

Ordered also that a copy of this Resolution, and a copy of the Report, be submitted to the Government of India in the Home Department.

Ordered also that a copy of this Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. C. STEVENS,

Offg. Chief Secy. to the Govt. of Bengal.

RESOLUTION ON THE REPORT OF THE SANITARY COMMISSIONER,
BENGAL, FOR THE YEAR 1889.

MUNICIPAL DEPARTMENT—SANITATION.

Darjeeling, the 20th June 1890.

RESOLUTION.

READ—

The Report of the Sanitary Commissioner, Bengal, for the year 1889.

Dr. Gregg, who was in charge of the office of Sanitary Commissioner throughout the year, has again submitted a clear and concise report.

2. A period of nine years has elapsed since the last census of Bengal was taken, and the population of the Province, which at that time was sixty-six millions in round numbers, has now no doubt considerably increased, probably in the proportion of at least one per cent. per annum, and it may be confidently assumed that the population of Bengal now exceeds seventy millions. But as there are no trustworthy data upon which the increase can be estimated as in European countries, the census of 1881 is still accepted by the Sanitary Commissioner as the basis of all calculations in his report, and the small improvement in the registration of vital statistics, which the returns of the year show, is therefore discounted to some extent by the fact that the ratios are calculated upon the same population as in previous years.

3. Births are at present registered in Bengal in towns only. It is pointed out by the Sanitary Commissioner that in other provinces births are registered in rural areas as well as in towns, and that there is no reason why Bengal should be backward in this respect. The registration of births was discontinued in rural areas because of the extreme inaccuracy of the statistics collected, and the Lieutenant-Governor is disposed to think that it will be better to wait for some time longer, until birth statistics in towns and mortuary statistics generally are compiled with more efficiency than they are at present, before complying with Dr. Gregg's suggestion. Births are now registered in 137 municipal towns with an aggregate census population of 2,422,994. The ratio of registered births is only 22·76 per thousand, the ratio of male births being 12·05, against female births 10·70. Dr. Gregg observes that the supposed standard of birth-rate in India is 40 per thousand, and it is probably even higher than this. There are indeed 6 Municipalities in Bengal in which the statistics of birth exceed this ratio; but there are no less than 15 in which the statistics are so imperfectly recorded that the ratio is less than 10 per thousand. Among these is South Suburban Municipality, where the ratio is 7·47. In four Municipalities—Muktagacha, Jhalokati, Goberdanga, and Nasirabad—the ratio is less than 5 per thousand. In a large and wealthy Municipality like Patna the ratio is only 12·98, in Buxar it is 14·71, in Purneah it is 15·45, in Midnapore it is 15·73, in Jessore it is 16·71, in Dacca it is 17·71, in Cuttack it is 17·83, in Berhampore it is 18·89, and in Krishnaghur it is 19·68. When the registration in important Municipalities, at the head-quarters of districts, is still so defective, it appears to be hopeless to attempt registration with any approximation to accuracy in rural areas. It is true that the registration for 1889 shows a slight improvement over that of 1888, when the ratio of births was only 20·63; but the result is still very discouraging, and shows that Municipalities as a body do not pay attention to this elementary and very necessary portion of their duties. The Lieutenant-Governor has observed that during the current year, according to the statements published weekly in the Gazette, birth registration is still extremely deficient.

4. The same remarks are applicable to the registration of deaths in Municipalities. The registered mortality in 1889 was 25·03 per thousand, against 24·86 per thousand

in 1888. The statistics recorded vary very widely in different Municipalities, as the following figures will show:—

	1889.	1888.	Mean of 1884-88.		1889.	1888.	Mean of 1884-88.
Pooree	71.4	32.9	50.8	Cuttack	20.0	16.2	17.6
Purulia	49.5	50.3	28.8	Furzedpore	19.0	8.8	21.3
Rangpore	47.2	33.6	33.7	Arrah	16.6	21.6	16.7
Serampore	46.0	40.6	38.6	Krishnagur	16.3	14.8	23.5
Ranigunge	42.3	45.1	39.9	Patna	15.9	21.0	22.5
Gya	42.2	49.3	49.8	Chittagong	15.0	18.7	21.7
Jamulpore	38.5	38.7	34.0	Santipore	11.7	9.4	13.5
City Moorshedabad	37.9	33.8	39.4	South Suburban	11.2	12.7	14.7
Utterpara	37.7	29.0	23.7	Ranaghat	10.9	6.6	11.4
Baranagore	36.8	30.6	24.4	Kishoregunge	10.9	6.4	17.5
Dinapore	33.4	31.5	21.9	Baduria	8.6	10.5	11.9
Hooghly	31.8	27.5	39.1	Tangai	5.3	9.2	18.9

The small improvement effected in the registration as a whole during the past year may be attributed to the special circular issued by Government on the subject, and to the action taken by the Sanitary Commissioner in supplementing the instructions then promulgated; but the registration in many Municipalities is still deplorably defective. There can be no reason why, under proper administrative arrangements, the registration should not be as complete at Patna and Arrah as it is at Gya, for instance, or in Ranaghat and Santipore as it is in Serampore and Utterpara. The South Suburban town is again conspicuous for its imperfect registration. The two newly created Municipalities of Cossipore-Chitpore and Manicktollah, where, in the former case, a mortality is registered of 38.9 per thousand, and in the latter only 14.5 per thousand, afford a marked illustration of good and bad work in adjoining localities. It is obvious that these figures supply very little scope for any observation on the comparative health of Municipalities during the year.

5. The registration of deaths is, however, effected throughout the whole province, and not in towns only, and when the whole area is taken into consideration, it is possible, notwithstanding the imperfection of registration, to deduce some important results. The total number of deaths registered in Bengal during 1889 (excluding still births) amounted to 1,597,478, against 1,515,735 in 1888, giving an annual death-rate of 24.25 and 22.94 respectively. As, in the opinion of the local medical officers, the year under review was not on the whole a more unhealthy one than 1888, the higher death-rate can only be ascribed to better registration, and the improvement, so far as it goes, is therefore satisfactory. The statements which are given of mortality according to sex and age enable some inference to be drawn of the respects in which registration is most deficient. Of the total number of deaths, 856,574 were males and only 740,904 females. The ratio of deaths is 26.2 males and only 22.3 females. As, according to the Census of Bengal, the number of females is slightly in excess of males, it follows that there is a special deficiency in the registration of female deaths, and further examination shows that this is the case in every district. The figures of death, according to age, give an infant mortality of 172.0 per thousand for infants under one year of age, and 26.7 for children of one year and under five years. Although this is the highest rate of infant mortality yet recorded for Bengal as a province, there are reasons

	Calcutta.			Province of Bengal.	
	1886	1887	1888	1888	1889
Ratio of mortality under one year of age	404.1	293.5	413.9	163.9	172.0
Between one and five years	57.8	48.5	51.8	25.8	26.7

for believing that it is very much below the actual mortality. The statement marginally given shows in parallel columns the ratio of mortality among children in Calcutta compared with the ratio given for the past two years in the Sanitary Commissioner's reports, and the only inference which can be drawn from the figures is that the mofussil registration is very imperfect. Both in the mofussil and in Calcutta the infant mortality bears a proportion to the total mortality of all ages of about 31 per cent. But in Calcutta the number of children, for reasons which have frequently been explained, and which it is not necessary to re-state, is very small. The number of children under five years of age is only 6 per cent. of the total population. In Bengal, generally, the number of children under five years of age is no less than 16 per cent. of the population. The fact that the registered mortality of children shows the same population to the total population in Calcutta and in

the mofussil is therefore conclusive evidence of the deficiency of registration in the mofussil. There is no reason for believing that the actual infant mortality in Calcutta is materially higher than it is in other parts of Bengal. It is only necessary to add that in the mofussil the registration of the deaths of female children is conspicuously deficient, and that of the total number of deaths under five years of age 258,518 are male and only 225,513 are female deaths. The Lieutenant-Governor hopes that the Sanitary Commissioner's attention will be given to these figures, and that in future reports their meaning may be further elucidated. The question of infant mortality in India merits special enquiry from a statistical point of view, and it would be interesting to compare the figures now furnished for Bengal with those of admitted accuracy in Europe.

6. The Lieutenant-Governor observes that in none of the districts of Bengal is the total registered mortality below 15 per thousand, and acknowledges that this is an improvement over previous years. The registration is worst in Mozufferpore (15.78), Chumparun (16.52), and Durbhunga (17.64). In the 24 Pergunnahs the ratio is only 18.74. This result is not creditable to the police of these districts. The districts in which registration has been most successful are Pooree (44.4), Balasore (38.9),

	For the district.	For the municipal head-quarters.
Backergunge	30.71	22.44
Cuttack	30.54	20.02
Beerbhoom	27.43	20.64
Shahabad	27.06	16.68
Patna	26.60	15.98
Howrah	23.99	22.71
Nuddea	22.27	16.37
Chittagong	21.33	15.03
Farroodpore	20.96	19.0

Darjeeling (36.2), Julpigoree (33.2), Noakholly (32.0), and Purneah (31.0). The figures given in the margin are quoted as showing that in many districts the registration of deaths among the whole population of the district (excluding municipalities) is more successfully accomplished by the executive police agency

than it is at the municipal head-quarters of districts, where special arrangements and special laws are in force for ensuring accuracy, although, as the result shows, without effect.

7. During the year under review 171,103 deaths were registered in the province from cholera, showing the high ratio of 2.59 per thousand of the population. The disease

prevailed with much severity during the hot weather, especially in the month of April, when there were 33,003 deaths. The diagrams furnished with the Sanitary Commissioner's report are exceedingly interesting, and a great improvement over those given in former years, as they show for each district the incidence of cholera in proportion to the population, and not, as was formerly the case, the number of cholera deaths only. The most remarkable feature in the cholera history of the year is the excessive mortality in the Orissa Division, especially in Pooree. The ratio of deaths from cholera in the Pooree district was no less than 20.01 per thousand, in Balasore it was 13.74, and in Cuttack it was 8.29. With the exception of Purneah, in which the cholera mortality was 9.5 per thousand, the Orissa Division stands out in marked prominence as the home of cholera during the past year. The remarks of Dr. Walsh, the late Civil Surgeon of Pooree, on the prevalence of the epidemic in the town of Pooree, where the deaths from cholera were 23 per thousand on the population of the town, are quoted by the Sanitary Commissioner, and though objectionably worded they indicate a condition of affairs which imperatively calls for improvement at the hands of the municipality. He writes:—

"The increase of cases from February to March coincides with the arrival of 20,000 pilgrims for the Dol Jatra. These people are tired, and, as regards health, below par; probably also one or two of them are already suffering from the premonitory stage of cholera when they enter the town. While in Pooree they eat hardly anything but the *Mohaprosad* rice prepared in the temple and the half-ripe fruit and vegetables which are exposed for sale in the streets. The *Mohaprosad* is often sold to them after it has been kept for days. It is then in a fermented condition, unwholesome, and liable to bring on diarrhoea, the general precursor of cholera. The tanks also in the town of Pooree are all extremely holy and extremely filthy. It is the duty of every pilgrim to drink out of all these sacred tanks, and it is the custom of many of them to defile the tanks either with faeces or urine before they drink. The cholera poison is thus easily spread among a large number of people in a poor state of health, and very susceptible to the attacks of any infectious disease. The permanent inhabitants of the town draw their drinking water, as a rule, from public or private wells, and do not suffer much from cholera. January, February, August, September and October give a total number of nine deaths only. These are the months during which only very few pilgrims visit Pooree. In short, the chief causes of cholera in Pooree are fatigue after long

journeys, unsuitable or unwholesome food (both these predisposing causes prepare the subject and render him susceptible to the action of the cholera poison), and active cholera germs communicated by tank water. If the pandias were only amenable to the elementary forms of reason, or if the Municipal Commissioners would display a little more firmness and desire to improve the health of their fellow townspeople, much might be done to reduce this source of danger. A mandate in the name of Jagannath would stop the people from drinking indiscriminately from all the tanks, and one tank might be set apart and used only for drinking purposes. For a time the municipality, acting on my advice, forbade bathing in a certain selected tank, but they did not remain firm, and gave way to popular opinion, which seemed to be in favour of making this tank as dirty as all the rest. Until the people learn, or are forcibly taught (by means of section 277 of the Indian Penal Code), that water used for drinking purposes must not be defiled, so long will it be impossible to check the prevalence of cholera during the religious festivals in Pooree."

It is deplorable to think that the rate of mortality from cholera alone in the town and district of Pooree—a mortality which is largely due to preventable causes—was not less than the rate of mortality from all causes combined in an ordinary healthy city or rural area in more favoured countries.

8. The outbreak in Purneah, of which the figures have already been given, was the severest known for years. It is supposed to have originated at the Caragola Fair, and so to have spread over the district. The insufficiency and impurity of the water-supply along the principal roads and communications in all the districts of Bengal is undoubtedly a prolific source of cholera. Dr. Gregg truly observes:—"Until the water-supply of the province is improved, and adequate sanitary arrangements made at fairs and other places where a large number of people assemble, I am afraid that there will be little or no diminution of the death-rate from cholera in Bengal." And again:—"The well-known predisposing causes, viz., polluted water, local insanitary conditions, imperfect drainage, errors of diet, and importation, are indicated as exciting and favouring, if not absolutely originating, this disease; but, as usual, the evidence is in the main confirmatory of the view that outbreaks of cholera are traceable to pollution of drinking water."

9. The total number of deaths from small-pox during the year was 8,665, or 13 per thousand of the population. The ratio was higher in towns than in rural areas, and this is attributed by Dr. Gregg "to neglect of vaccination, which is not creditable to Municipal Commissioners." The decrease prevailed with the greatest severity in Pooree, Chumparun, and Bankoora.

10. The total number of deaths from fever was 1,101,521 or 16.72 per thousand of the population. The ratio of urban mortality was 10.84, and of rural mortality 16.02.

There is a steady increase, year by year, in the number of deaths recorded from fever, but it is probable that this result is due to improvement in registration and increase in the population rather than to greater unhealthiness of climate. The lowest mortality from fever is invariably in the month of June,

Districts.	Ratio per mille.
Jalpigoree	29.18
Noakhully	29.77
Dinapore	25.74
Monghyr	24.54
Darjeeling	22.93
Rajshahye	22.74
Rungpore	22.07
Jessore	21.44
Gya	21.31
Maldah	21.20
Bhagulpore	20.93
Hazariabagh	20.84
Purneah	20.59
Shahabad	20.45

when it gradually rises till it reaches its maximum during the drying up of the rains in November and December. The death-rate was highest in the 14 districts noted in the margin, and the cause, in all districts alike, is attributed to impeded drainage. Many extracts from the reports of Civil Surgeons are given, which show that the prevalence of malarial fever in Bengal is not due to inundations, which on the contrary are beneficial to health as a means of flushing, and that it is only when the surface drainage is obstructed, and the water sinks into and stagnates in the soil, that the locality becomes malarious. The Lieutenant-Governor observes that the province of Orissa is remarkable for the comparative absence of fever, and that the district of Pooree, which in other respects has attained the unenviable notoriety of being the most unhealthy district in Bengal, shows the smallest fever mortality. The Sanitary Commissioner's report throws no light on this coincidence, but the point is one which seems to merit further enquiry and explanation.

11. After making the necessary adjustments on account of the amalgamation of the Suburban Municipality with the town of Calcutta, the total sanitary expenditure incurred

Expenditure on sanitation in Municipalities.

in mofussil Municipalities during the year is reported to be Rs. 12,81,031, against an expenditure of Rs. 11,30,081 incurred in 1888. The principal increase is under the head of conservancy and water-supply. The general result is undoubtedly satisfactory. The Sanitary Commissioner remarks:— "It will be seen that on the whole Municipal Commissioners are doing what they can to improve the sanitary condition of their towns; but although a good deal has been done, and is being done, I am again compelled to remark that in many cases municipal income is wasted on temporary works and on works of minor importance, while works of a more needed, substantial, and lasting nature, such as drainage, water-supply, and public latrines, are neglected." The Lieutenant-Governor is glad to notice that during the present year Municipalities have applied in several cases for loans in order to undertake important works of permanent sanitary improvement, and desires to take this opportunity of again assuring Municipal Commissioners that such applications will always receive the most favourable consideration from Government.

12. The Sanitary Commissioner's report does not touch on the work of sanitation under District Boards. The truth is that, although the promotion of sanitation is a duty entrusted under the Local Self-Government Act to District Boards, little or no progress is made in this direction, because the Boards possess no funds for the purpose. The Boards in Bengal are not vested with powers to impose local taxation to meet the requirements of local sanitation. And yet no grievance presses more hardly on the people than those which are created by the insanitary condition of the country. Constant complaints come to the notice of Government, through the vernacular press and elsewhere, of the necessity of improved drinking water, and in a hardly less degree of improved drainage, from almost every district of these provinces. The agency for the execution of sanitary reform in rural areas, and the means by which such reforms may be executed, are questions now under the consideration of Government.

13. Dr. Gregg was indefatigable during the year in his inspection of Municipalities and in the preparation of schemes for their sanitation. A copy of his more important inspection memoranda constitutes a very useful annexure to his present report. Since the close of the year a Sanitary Board, consisting of Sir Henry Harrison, Member of the Board of Revenue, as President, and Colonel McNeile, Chief Engineer and Secretary to Government in the Irrigation Branch of the Public Works Department, and Dr. Gregg, the Sanitary Commissioner, as members, has been appointed, and a whole-time officer will be placed at the disposal of the Board as Sanitary Engineer. The function of this officer will be to accompany the Sanitary Commissioner on his tours; to work in concert and concurrence with him in the preparation of designs, plans and estimates; to guide the Municipalities in getting up projects, and after these have been approved by the Board and under the advice of the Chief Engineer, to inspect the works while in course of construction and report to the Board on the progress made. It is intended that he should be the right-hand man of the Sanitary Commissioner in all matters involving engineering knowledge and experience. The Sanitary Board will be the executive agency through which the Government will act in the Sanitary Department, and it is hoped that, if judiciously worked, it will exercise a powerful initiative and a valuable control in all departments of sanitary work.

14. The thanks of Government are due to Dr. Gregg for the services he has rendered to the cause of sanitation during the year. The Lieutenant-Governor is glad to acknowledge also the good work done by Surgeons-Major Gupta and Waddell, and Assistant Surgeon Norendro Nath Gupta, Deputy Sanitary Commissioners of the Metropolitan, Darjeeling, and Eastern Bengal Circles, to which Dr. Gregg draws attention.

By order of the Lieutenant-Governor of Bengal,

H. J. S. COTTON,

Secretary to the Govt. of Bengal.

**REPORT ON THE WORKING OF THE LICENSED WAREHOUSE
AND FIRE-BRIGADE ACT IV (B.O.) OF 1883 IN CALCUTTA
DURING THE YEAR 1889-90.**

No. 62J., dated Calcutta, the 16th June 1890.

From—HARRY LEE, Esq., c.s., Chairman of the Corporation of Calcutta,
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to submit the following report, under section 30 of Act IV (B.O.) of 1883, of the jute screw and warehouses in Calcutta for the year ended 31st March 1890.

2. At the close of last year there were 69 sanctioned warehouses on the register within the limits of the town; three new warehouses have been newly established, and 25 warehouses in the amalgamated area have been added to this number, bringing the total up to 97. A complete list, arranged according to the Acts under which they were originally licensed, is appended to this report.

3. Nine applications for new licenses were received during the year as shown below—

Locality.	Nature of application.	REMARKS.
1. No. 72, Shobha Bazar Street...	For licensing existing godowns for storage of jute.	Refused, as there was not sufficient cart space.
2. " 25, Budree Dass Temple Street.	Ditto ditto ...	Sanctioned by the Commissioners.
3. Nos. 78 and 79, Shobha Bazar Street.	Ditto ditto ...	Ditto ditto.
4. No. 58, Gourebera Road ...	Ditto ditto ...	Ditto but license not taken out this year.
5. " 67-5, Strand Road ...	Ditto ditto ...	Still under consideration.
6. Nos. 93 and 94, Shobha Bazar Street.	Ditto ditto ...	Ditto ditto.
7. No. 1-1, Gailiffe Street ...	New construction ...	Sanctioned.
8. " 24, Budree Dass Temple Street.	Ditto ditto ...	Still under consideration.
9. " 55, Gourebera Lane ...	Ditto ditto ...	Ditto ditto.

4. The total amount of license fees realized during the year from the 97 warehouses mentioned above amounted to Rs. 27,529-8.

5. Only one prosecution against the owner of premises No. 134, Durmahatta Street was instituted before an Honorary Magistrate for allowing the premises to be used for storage of jute without a license, which resulted in the owner being convicted and fined Rs. 5 only.

6. The letter from the Chamber of Commerce, recently forwarded to me with your remarks regarding the funds for the support of the Fire-Brigade, is still under consideration by the Commissioners, but a reply will be shortly sent. It is satisfactory to note that no fire broke out in any of the jute godowns during last year.

7. The subjoined statement shows the receipts and expenditure during the year under review—

Abstract Account of Receipts and Disbursements of the Jute Warehouse Fund for the year 1889-90.

Dr.

Cr.

RECEIPTS.			DISBURSEMENTS.		
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
License for jute warehouses ...	27,529 8 0		50 per cent. of receipts paid to Commissioner of Police ...	22,734 12 10	
Miscellaneous receipts ...	14 0 0	27,543 8 0	20 " ditto transferred to Inspection Fund ...	5,508 11 2	38,243 8 0
BALANCE ON 1ST APRIL 1889—			BALANCE ON 31ST MARCH 1890—		
Cash in the Bank of Bengal ...		800 0 0	Cash in the Bank of Bengal ...		100 0 0
Total ...		28,343 8 0	Total ...		28,343 8 0
50 per cent. of receipts of Jute Warehouse Fund ...	5,508 11 2	15,508 11 2	Jute Warehouse Inspection establishment ...	4,634 14 11	
BALANCE ON 1ST APRIL 1889—			Contingencies ...	50 13 0	4,133 11 11
Cash in the Bank of Bengal ...	1,420 11 8		BALANCE ON 31ST MARCH 1890—		
Less shown above ...	800 0 0				
	620 11 8				
Rs. A. P.			Rs. A. P.		
Less due to General Fund ...	609 8 6		Cash in the Bank of Bengal ...	1,490 2 3	
Ditto to Collector of income-tax ...	11 3 2		Less shown above ...	100 0 0	
	620 11 8			1,390 2 3	
Total ...		5,508 11 2	Deduct amount due to Collector of income-tax ...	17 3 0	1,372 15 3
			Total ..		5,508 11 2

Complete List of the Jute Warehouses licensed in Calcutta for the year 1889-90.

No.	Name of street and number of premises.	Name of license-holder.	Annual assessment.	Annual license fee.
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LICENSED UNDER SECTIONS 4-6, ACT II (B. C.) OF 1872.

			Rs.	Rs.
1	Aheerettollah Street ...	Korum Chand ...	1,200	200
2	169, ditto ...	Kissen Chand Bhoom Sing ...	3 000	300
3	170, ditto ...	Radhamoy, Sreenath Dey Chowdhury, &c. ...	1,368	200
4	172, ditto ...	Sristydhur Dey ...	1,200	200
5	87 to 87-53, Durmahatta Street ...	Ram Narain, Agent ...	9,000	900
6	195, ditto ...	Sreedhur Mondul ...	480	50
7	138-39, ditto ...	ditto ...	360	50
8	7, Doorga Churn Mookerjee's Street ...	Peary Mohun Biswas ...	360	50
9	4, Hurro Chundra Mullick's St. ...	Prohlad Chundro Shaw ...	800	100
10	6, ditto ...	Juggeshur Halder ...	912	100
11	14, ditto ...	Gobin Chundra Dutt ...	1,860	200
12	23, ditto ...	Juggatmohun Shaw ...	900	100
13	27, ditto ...	Chunder Seekur, Radhica Lall Shaw ...	600	100
14	28, ditto ...	Benode Behary Khan ...	720	100
15	28, Jorabagan Street ...	Rameshur Aitch ...	984	100
16	31 to 31-4, Manick Bose's Ghat Street ...	Sreemotee Nobinkissoree Dassee ...	900	100
17	8, Noyan Soor's Ghat Lane ...	Goorogobind Shaw & others ...	1,300	200
18	57, Strand Road ...	Judoonath Shaw Chowdhury ...	1,740	200
19	6, Sobha Bazar Street ...	Bamaeburn Ghose ...	960	100
20	7, ditto ...	Chandra Seekur Sreekanto Shaw Pramanick ...	960	100
21	12, ditto ...	Parbutty Churn Soor ...	600	100
22	67, ditto ...	Dookhiram Dass ...	780	100
23	71-1, ditto ...	Deno Nath Shaw ...	720	100
24	73, ditto ...	Dhuniram Kassinath Shaw ...	2,580	300
25	91-92, ditto ...	Sreedhur Mondul ...	1,800	200
26	98-2, ditto ...	Juggobundhoo Sarat Chunder Shaw ...	3,000	300

LICENSED UNDER SECTION 7, ACT II (B.C.) OF 1872.

27	20, Bonomally Sircar's Street...	Dinobundhoo Nundy & others...	420	50
28	206, Chitpore Road ...	Kanie Lall Khan ...	1,500	200
29	247-48, ditto ...	Messrs. Finlay, Muir & Co. ...	21,000	2,000
30	16, Hurro Chundra Mullick's L. ...	Moharaj Anundo Mohun Shaw ...	900	100
31	26-27, Jorabagan Street ...	Peary Mohun Dutt ...	1,476	200
32	67-27-H-1-A, Strand Road ...	Secretary, I. G. S. N. Co., Ltd. ...	3,078	400
33	3 to 3-3, Shobha Bazar Street ...	Lolit Mohun Shaw & others ...	7,920	800
34	10, ditto ...	Jullodhur Shaw & others ...	2,800	300
35	95-96, ditto ...	Juggat Mohun Shaw ...	2,400	300
36	98, ditto ...	Sitanath Shaw Chowdhury ...	3,000	300

LICENSED UNDER ACT II OF 1872 AS AMENDED BY ACT II OF 1875.

37	144, Durmahatta Street ...	Secretary to the Port Commrs. ...	4,800	500
38	{ 45, Durgachurn Mookerjee's } { St. & 202-1, Chitpore Road }	Issur Chunder Mitter ...	1,800	200
39	24, Hurro Chundra Mullick's L. ...	Khetter Mohun Biswas ...	300	50
40	36, Mullick Bose's Ghat Street ...	Sreemutty Kaminee Dassee ...	3,000	300
41	7, Noyan Soor's Ghat Lane...	Shumbhoonath and Gobindnath Chowdhury ...	1,000	100
42	67-2 and 67-31-H-1, Strand Rd. ...	Messrs. Stanley and Co. ...	31,916	2,000
43	67-27-H-1-B, Ditto ...	Secretary, I. G. S. N. Co., Ltd. ...	3,078	400
44	100, Shobha Bazar Street ..	Sreedhur Sham Dass Mondul ...	1,500	200

No.	Name of street and number of premises.	Name of license-holder.	Annual assessment.	Annual license fee.
LICENSED UNDER SECTION 6, ACT V (B.C.) OF 1879.			Rs.	Rs.
45	78-2, 80 & 80-1, Durmahatta St	Behary Lal Pyne ...	3,300	400
46	143 and 143-1, Ditto ...	Goorogobind Shaw ...	9,000	900
47	202, Ditto ...	Gobind Chand Dutt and another	4,000	400
48	5, Doorga Churn Moorkerjee's St.	Adhar Chunder Shaw ...	1,380	200
49	6, Ditto ...	Doyal Chand Shaw ...	1,372	200
50	5, Hurro Chundra Mullick's St.	Juggobundhoo Soshee Mohun Shaw Pramanick ...	1,440	200
51	16, Ditto ...	Gooroo Churn Shaw ...	960	100
52	9, Noyan Spoor's Ghat Lane ...	Nobin Chunder Coondoo ...	1,200	200
53	46, Manick Bose's Ghat Street	Nittanund Shaw ...	2,160	300
54	1, Noyan Spoor's Ghat Lane ...	Sateettry Soondary Dassee ...	840	100
55	62, Nimitollah Ghat Street ...	Managing Agent, India Pressing Company, Ltd. ...	12 00	1,200
56	5, Shobha Bazar Street ...	Bissumbhur Mullick ...	2 00	300
57	90, Ditto ...	Debnath Shaw & others ...	2 10	300
LICENSED UNDER SECTION 6, ACT IV (B.C.) OF 1883.				
58	13-6, Hurro Ch. Mullick's St.	Bissonath Luchmeenath Pramanick ...	960	100
59	82, Nimitollah Ghat Street ...	Jadoonath Shaw Chowdhury ...	2,400	300
60	67-9, Strand Road ...	Messrs. Macneill and Co. ...	6,600	700
61	5, Aheerettollah Street ...	Thansing Korum Chand ...	1,800	200
62	98-1, Shobha Bazar Street ...	Juggobundhoo, Sarat Chunder Shaw Chowdhury ...	900	100
63	11, Hurro Chundra Mullick's St.	Dwarka Nath Shaw ...	900	100
64	44, Manick Bose's Ghat Street	Debendro Deb Dass ...	1,680	200
65	135, Durmahatta Street ...	Bhim Churn Soroop Chunder Roy	3,600	400
66	58, Nimitollah Ghat Street ...	Managing Agent, India Pressing Company, Ltd. ...	5,400	600
67	178 to 178-4, Upper Chitpore Road and 2 to 2-2, Ramkanto Rose's Street ...	Messrs. Finlay, Muir and & Co. Managing Agent, I. G. S. N. Co., Ltd. ...	4,800	500
68	67-9-H-1, Strand Road ...	P. N. Mitter ...	4,452	500
69	42-43, Doorga Ch. Moorkerjee's St.	Mothoorakant Shaw Chowdhury	4,320	500
70	78-79, Shobha Bazar Street ...	George Henderson and Co. ...	2,520	300
71	135, Ballighatta Road ...	Gopeemohun Roy ...	1,200	120
72	1-1, Budree Dass Temple Street	Hurrydass Dutt ...	960	96
73	2, Ditto Ditto ...	Hurish Chunder Dutt ...	240	50
74	20, Ditto Ditto ...	Tran Nath Bauerjee ...	300	50
75	25, Ditto Ditto ...	Lolitmohun, Brindabun Shaw ...	144	50
76	24-2 and 24-3, Canal West Road	Ditto ditto ...	720	72
77	25-1, Ditto ...	Goopemohun Roy ...	180	50
78	29, Ditto ...	Mohima Chunder Coondoo ...	1,310	131
79	31, Ditto ...	Ditto ditto ...	840	84
80	32, Ditto ...	Taraprosunno Roy ...	720	72
81	35-4, Ditto ...	Deepchand and Hurro Chunder Coondoo ...	980	98
82	35-5, Ditto ...	Hurish Chunder Dutt ...	1,200	120
83	37-6, Ditto ...	Hurish Chunder Dutt ...	960	96
84	39-3-1, Canal West Road ...	Kally Sunkar and Tarrucknath Coondoo ...	1,200	120
85	39-4-1, Ditto ...	Soorjo Coomar and Gooroochurn Shaw ...	600	60
86	39-3, Ditto ...	George Henderson and Co. ...	720	72
87	1, Chitpore Bridge Road ...	Manager, E. B. S. Railway ...	1,800	180
88	308, Upper Circular Road ...	George Henderson and Co. ...	6,000	600
89	1, Gailiffe Street ...	Ditto ditto ...	9,600	960
90	1-1, Ditto ...	Nilmadhub Sickdar ...	1,800	180
91	12, Ditto ...	Gillanders, Arbuthnot & Co. ...	480	50
92	9, Garden Reach Road ...	Messrs. Bird & Co. ...	2,880	288
93	6, Gooriparah Road ...	Sonaton Dey ...	2,000	200
94	6, Gourebere Road ...	Norrottum Sickdar ...	480	50
95	19, Ditto ...	Ditto ...	780	78
96	60, Ditto ...	Koonjo Behary Bose ...	1,020	102
97	3, Circular Tallygunge Road ...		120	50

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 21st June, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
<i>Western Districts.</i>			
BURDWAN DIV.	1 Burdwan June 21, '90	0.60	Weather—seasonable with frequent showers. Sowing of <i>aus</i> and <i>amun</i> going on. Sugarcane doing well. <i>Til</i> is being harvested, and the outturn is expected to be 8 annas. Prices of common rice:—
	Culina ...	2.04	
	Cutwa ...	3.31	
	Raigunge ...	0.61	
			Srs. Burdwan ... 16 Culina ... 14 Cutwa ... 14½ Raigunge ... 16 } per rupee.
	2 Bankoora „ 21, '90	1.18	Weather—seasonable. Ploughing and sowing of rice proceeding. Young seed plants coming on well. Transplanting commenced in thana Sonamukhi. <i>Til</i> , indigo, and sugarcane doing well. Sugarcane cultivation in the Sudder subdivision estimated at about 12 annas. Common rice sells at 19 seers per rupee at Sudder and 17 seers at Bissenpore.
	3 Birbhum „ 21, '90	1.21	Constant short showers. Sowing of <i>amun</i> going on everywhere. The weather so far very favourable for agriculture. Common rice still 16 to 20 seers per rupee.
	Rampore Haut ...	0.70	
	4 Midnapur „ 21, '90	2.04	Weather—drizzling rain and showers throughout the week. Paddy where sown doing well. Prices of rice:—
			Srs. Sudder ... 17 Ghatal ... 16 Tumlook ... 14 Contai ... 19 } per rupee.
	5 Hooghly „ 21, '90	1.53	Weather—cool and showery. Ploughing and sowing in progress. Prospects favourable. Prices of common rice:—
	Serampore ...	1.44	
	Jehanabad ...	1.24	
			Srs. Sudder ... 13 Serampore ... 13 Jehanabad ... 16 } per rupee.
	Howrah „ 21, '90	2.88	Weather—seasonable. <i>Aus</i> and <i>amun</i> seedlings, sugarcane, and jute doing well. Further rain not required at present in the Uluberia subdivision. Common rice sells at from 14 to 15 seers per rupee.
	Uluberia ...	7.45	
	<i>Central Districts.</i>		
	6 24-Pergha June 24, '90	2.32	Weather—rainy throughout the week. Prospects of all standing crops favourable. Transplanting of <i>amun</i> has commenced on low lands, and ploughing and sowing proceeding briskly. Prices stationary.
PREMISES DIV.	7 Nuddea „ 21, '90	0.87	Weather—seasonable. Young plants of early rice doing well. Weeding and harrowing going on busily.
	Kushtia ...	1.44	
	Meherpore ...	0.96	
	Chundanga ...	0.83	
	Ranaghat ...	0.52	
	8 Khoolna „ 21, '90	3.17	Weather—seasonable with good rain. Prospects and condition of all crops now on the ground good. Sowing still going on.
	Satkhira ...	0.86	
	Bagirhat ...	1.75	
	9 Jessore „ 21, '90	1.43	Weather—hot and cloudy with occasional showers. Rain proving beneficial to the standing crops. Rice sowings nearly over. Prospects favourable. Price of rice stationary.
	Jhenidah ...	1.33	
	Magura ...	2.10	
	Narail ...	0.45	
	Bongong ...	1.98	
	10 Moorshedabad „ 21, '90	0.73	Weather—hot with slight showers. More rain wanted. Lands are still being cultivated for <i>amun</i> paddy. <i>Bhadol</i> is being weeded.
RAJSHAHY DIV.	11 Dinagepur „ 21, '90	1.59	Weather—sultry, but raining at intervals. <i>Bhadol</i> paddy, jute, and sugarcane thriving well. Transplanting of <i>haimanti</i> paddy seedlings commenced on low lands. Price of rice at Sudder and Thakurgaon stationary.
	Thakurgaon ...	2.73	
	12 Rajshahye „ 21, '90	0.81	Weather—seasonable. Jute and both kinds of paddy will give a bumper return this year if all goes well with the crops, as it has done hitherto.
	Natore ...	0.98	
	Nowgong ...	1.32	
	13 Rungpur „ 21, '90	2.07	Weather—still very unsettled; sunshine alternates with heavy rain. <i>Aus</i> rice is being cut, and will be a heavy crop. <i>Amun</i> is in process of transplantation. Jute coming up well. Fine weather much needed for harvesting.
	Gaibanda ...	3.46	
	Kurigram ...	1.54	
	Nilphamari ...	2.52	
	14 Bogra „ 21, '90	0.53	Weather—unsettled; generally cloudy, with occasional showers. Jute and <i>aus</i> paddy growing well. A good deal of <i>amun</i> paddy has been sown, and other land is being ploughed for the crop. Common rice selling at 18 seers per rupee.
	Sherpur ...	0.23	
	15 Pubna „ 21, '90	0.64	Weather—hot and cloudy. Prospects of crops generally satisfactory. Cutting of jute in the Sonagunge subdivision begun. Price of rice stationary.
	16 Darjeeling „ 21, '90	6.06	Weather—rainy. Sowing of jute, <i>bhadol</i> , and Indian-corn in the Terai completed. Potatoes in the hills progressing favourably. Prospects good.
	17 Julpigoree „ 21, '90	8.96	Weather—sultry with occasional showers. <i>Bhadol</i> paddy and jute growing well. Prospects favourable. Common rice selling at 14 seers per rupee at Sudder station.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca June 21, '90	1.89	Weather—hot and cloudy. Rice and jute thriving. <i>Aus</i> paddy in chur lands is being reaped. Common rice sold at from 12 to 16 seers per rupee.
	19 Furreedpur „ 21, '90	0.86	Weather—seasonable. State and prospects of standing crops fair. Rivers rising fast. Rice selling between 13 and 14 seers a rupee.
	20 Backergunge „ 21, '90	4.67	Weather—seasonable. Prospects of crops good. <i>Aus</i> rice looking well. Common rice selling at from 12 to 16 seers per rupee.
	21 Mymensingh „ 21, '90	1.34	Weather—seasonable. State and prospects of crops good. Common rice sells at 13½ seers per rupee.
Chittagong Divn.	22 Chittagong „ 24, '90	10.26	Weather—rainy. <i>Pania aus</i> thriving. Cultivation in progress. Prices steady.
	23 Noakhally „ 21, '90	3.73	Weather—seasonable. Sowing of <i>amun</i> going on. State of the <i>aus</i> plants reported to be good. Prospects favourable.
	24 Tipperah „ 21, '90	3.66	Weather—fairly cool with high winds and frequent showers. <i>Aus</i> , <i>amun</i> , and jute flourishing. Price of rice stationary.
	25 Chittagong Hill Tracts „ „	...	Report not received.
BEHAR.			
Patna Divn.	Hill Tipperah „ „	...	Report not received.
	26 Patna „ 21, '90	0.57	Weather—hot. Transplanting of <i>marua</i> and sowing of other <i>bhadoi</i> crops in progress. Harvesting of <i>cheena</i> still going on. Paddy is being sown.
	Behar „ „	0.87	Prices of food-grains almost stationary.
	Dinapore „ „	0.41	
	27 Gya „ 21, '90	0.82	Weather—hot. Sugarcane doing well. Sowing of <i>marua</i> going on. Prices of food-grains stationary.
	28 Shahabad „ 21, '90	1.91	Weather—cool after the rain. Prospects good. Rain will benefit sowings.
	Buxar „ „	0.94	Prices stationary.
	Bhabuah „ „	0.08	
	29 Durbhanga „ 21, '90	2.27	Weather—hot with occasional showers. <i>Bhadoi</i> sowings are being vigorously pushed on. Those already sown are germinating well. Indigo manufacture is about to commence. Prices almost stationary.
	Somastipur „ „	0.04	
	30 Mozufferpur „ 21, '90	1.09	Heavy rain fell on Thursday (19th) night, and there have been frequent showers since. The rains have evidently begun. The backward indigo crop will be much benefited by the rain. All other crops on the ground are doing well. Sowing of rice and <i>makai</i> continues.
	Hajipur „ „	0.32	
	31 Saran „ 21, '90	0.74	Weather—cloudy and rainy. The monsoon has set in. Heavy rain at Sewan. Prospects good, and all crops doing well. Indigo manufacture will shortly begin.
	32 Champarnu „ 21, '90	2.03	Weather—sultry and cloudy; rainy at times. Good showers of rain fell all over the district; but more is wanted in places. <i>Bhadoi</i> and <i>aghani</i> sowings still going on. Prices almost stationary.
	Bettiah „ „	3.01	
	33 Monghyr „ 21, '90	1.93	Weather—hot and sultry with east wind. More rain wanted for <i>bhadoi</i> sowings. Indigo promises well. <i>Makai</i> and <i>marua</i> being sown. The long drought has caused the rain that fell during the week to be quickly absorbed.
	Begusarai „ „	0.04	
	Jamui „ „	1.79	
	34 Bhagalpur „ „	...	Report not received.
Bhagalpore Divn.	35 Purneah „ 21, '90	4.99	Weather—cloudy and sultry. <i>Bhadoi</i> and jute being weeded. Indigo being manufactured. <i>Aghani</i> transplanting going on. Prospects good.
	Kishengunge „ „	2.62	
	Arrareah „ „	0.30	
	36 Maldah „ 21, '90	1.15	Weather—hot and bright in the beginning of the week, but latterly heavy showers. Sowing of <i>bhadoi</i> and winter rice crops going on. Standing crops doing well. Common rice selling at from 12 to 18 seers per rupee. Rivers rising.
	Chanchal „ „	1.07	
	Shibganje „ „	0.40	
	Gajole „ „	2.15	
	37 Sonthal Pergah „ 21, '90	1.12	Weather—cool for this time of the year. Rain much wanted at Deoghur and Jamara. Indian-corn getting on satisfactorily. Ploughing and sowing of paddy in active progress. An inch or two of rain will greatly help cultivation and improve prospects.
	Deoghur „ „	0.21	
	Godda „ „	0.22	
	Rajmahal „ „	0.66	
	Pakour „ „	3.82	

* Rainfall for week ending 23rd June.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack ... ..	...	Report not received.
	39 Pooree ... ..	...	Report not received.
	40 Balasore ... ..	...	Report not received.
CHOTA NAGPORE.			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPORE DIVN.	41 Hazaribagh June 21, '90	1.71	Weather—seasonable. Good rain on 20th and 21st. Ploughing and sowing in progress everywhere. Sowings of paddy from 6 to 12 annas completed in places. Sugarcane doing well. Rice selling at from 14 to 18 seers per rupee.
	42 Lohardugga „ 21, '90	2.99	Weather—seasonable. The rains seem to have fairly commenced. Bhadoi crop has mostly been sown and is coming up in places. The sowing of the winter rice crop has commenced. Prices steady.
	Palamow (up to 16th June)	1.40	
	43 Singbhoom June 21, '90	1.18	The rains have set in. Prospects of crops very favourable. Rice sowing progressing. Bhadoi crops, such as Indian-corn, <i>goondli</i> , <i>mung</i> , <i>biri</i> , and <i>til</i> , are being sown. Sugarcane thriving. Price of rice 18 to 24 seers per rupee.
CHOTA NAGPORE DIVN.	44 Manbhoom „ 21, '90	2.18	Weather—seasonable. Good rain during the last three days has facilitated sowing, which is well advanced in Purulia, but is less so in Bagmundi and Jhalda.
	Go vindpore	0.14	

Published for general information.

CALCUTTA; REVENUE DEPT.,
The 24th June, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE
HEAD-QUARTER STATION BAZARS OF THE DISTRICTS OF BENGAL
DURING THE PORTNIGHT ENDING THE
15TH JUNE 1890.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			PARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																			
Western Districts.																			
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
1	Burdwan	14 0	13 12	12 8	...	...	...	12 0	12 0	11 4	15 9	15 6	15 0	...	...	...	...	...	...
2	Bankoora	14 8	15 0	13 12	20 0	20 0	17 0	16 0	16 8	14 12	18 0	19 0	17 8	...	...	...	...	...	...
3	Beerbhoom	16 8	16 8	15 0	...	...	...	13 8	13 8	12 0	16 0	16 0	13 8	...	...	...	...	...	...
4	Midnapore	14 0	14 0	12 0	...	...	...	13 12	13 12	11 0	16 0	16 4	15 8	...	...	...	...	...	...
5	Hooghly	13 0	13 0	13 0	...	...	...	8 0	8 0	10 0	13 0	13 0	12 8	...	...	...	...	...	...
	Howrah	...	...	...	...	...	...	11 4	11 4	10 0	14 0	14 0	13 12	...	...	...	...	...	...
Central Districts.																			
	uttar	13 8	13 5	12 11	16 8	17 8	16 1	8 15	8 10	8 11	12 14	14 6	12 10	18 11	18 13	16 13	...	...	...
6	24. Pergunnahs	15 0	15 4	13 5	17 0	17 4	16 0	8 0	8 0	8 0	14 0	14 0	13 4	...	...	...	...	...	...
7	Nuddea	15 0	15 0	14 15	...	20 0	...	11 13	11 6	12 0	12 14	12 13	14 2	...	...	...	...	...	...
8	Khoolna	...	...	...	...	...	...	13 0	12 0	13 12	15 0	16 0	13 0	...	...	...	...	...	...
9	Jessore	13 0	13 0	13 14	...	...	...	11 0	11 0	10 8	15 0	15 0	12 12	...	...	...	...	...	...
10	Moorshedabad	16 0	16 0	14 8	...	...	...	11 0	10 0	11 0	15 0	13 5	14 0	...	...	...	...	...	...
11	Dinagore	19 4	19 4	13 0	16 0	16 0	...	13 8	13 4	11 4	17 0	16 0	14 4	...	...	...	...	...	...
12	Rajshahye	16 8	15 12	13 8	24 0	22 8	19 8	12 12	12 12	10 8	13 11	14 4	12 0	...	...	...	...	...	...
13	Rangpore	13 5	13 5	14 8	...	...	...	9 6	9 6	10 5	13 5	13 5	14 8	...	...	...	...	...	...
14	Bogra	15 0	15 0	15 0	...	...	...	12 0	12 0	12 0	16 8	16 8	15 0	...	...	...	...	...	...
15	Pubna	18 12	18 12	16 8	...	...	...	7 8	7 2	7 8	15 0	15 0	12 12	...	...	...	...	...	...
16	Darjeeling	10 0	9 0	10 0	9 0	10 0	6 0	5 0	5 0	6 0	12 0	12 0	11 0	...	...	...	...	...	...
17	Jalpigoree	13 0	13 0	11 0	20 0	16 0	16 0	8 0	8 0	8 0	16 0	14 0	15 0	...	...	...	...	...	...
Eastern Districts.																			
18	Dacca	13 0	13 0	13 0	16 0	16 0	26 0	12 0	12 0	11 4	13 0	13 0	13 0	...	...	...	...	...	...
19	Furzedpore	14 0	14 0	16 0	18 0	18 0	18 0	10 0	9 0	8 0	14 0	14 0	12 0	...	...	...	...	...	...
20	Backergunge	...	...	...	...	...	...	12 8	12 8	11 0	13 0	13 0	12 0	...	...	...	...	...	...
21	Mymensingh	11 0	11 4	10 0	...	...	...	13 0	11 0	13 0	13 12	13 0	16 0	...	...	...	...	...	...

A In subdivisions retail prices of salt per rupee are:—Calna 10 seers, Cutwa 10 seers 6 chittacks, and Naneegunge 10½ seers.

B At Rampore Hant retail price of salt 10 seers per rupee.

C In subdivisions retail prices of salt per rupee are:—Contal 10 seers, Tamlook 8 seers, and Ghatal 10½ seers.

D In the subdivisions of Serampore and Jehanabad the wholesale price of salt is Rs. 3-14 per maund.

E In subdivisions retail prices of salt per rupee are:—Barnas 9 seers, Basirhat 9 seers, Diamond Harbour (at Magrahat) 10 seers, Barrackpore 9 seers 2 chittacks, and Dum-Dum 10 seers.

F In subdivisions retail prices of salt per rupee are:—Koothra 10 seers, Meherpore 9 seers, Chobadanga 9 seers, and Ranaghat 9 seers 2 chittacks.

G In subdivisions retail prices of salt per rupee are:—Bathkura 9 seers 13 chittacks and Bagirhat 8 seers.

H In subdivisions retail prices of salt per rupee are:—Jhenida 9 seers, Magura 9½ seers, Narail 9½ seers, and Bongong 10 seers.

I In subdivisions retail prices of salt per rupee are:—Lalbagh 9 seers, Jungipore 10 seers, and Kandi 10 seers 10 chittacks.

KANGNI OR KAKUN, ITALIAN MILLET, (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALA, OR SUNAGA. (<i>Cyperus aristatus</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	19 0	18 0	17 0	...	...	...
...	17 8	17 8	16 0	...	...	...
...	18 8	18 0	16 8	...	...	...
...	15 8	15 8	15 0	...	...	...
...	16 0	16 0	15 0	...	...	...
...	17 12	17 12	16 0	...	...	...

8 7	8 2	17 12	17 9	16 12	15 1
6 8	6 8	12 8	18 12	18 12	16 0
...	...	...	20 10	19 0	17 12
...	...	...	14 0	14 8	13 5
...	...	...	16 0	16 0	16 0
...	...	...	21 0	22 0	18 0
...	...	...	16 0	16 0	15 0
...	...	...	21 0	21 0	18 12
...	...	...	12 4	12 4	13 6
...	...	...	15 0	18 8	16 6
...	...	...	18 12	17 12	18 0
...	...	...	11 0	11 0	11 0
...	...	...	16 0	13 0	16 0

...	...	...	14 0	14 0	14 0
...	...	...	15 0	15 0	16 0
...	...	...	15 4	15 4	15 0
...	...	...	13 0	13 8	13 4

13627

SEERS OF 80 TOLAHS.

BAJHA OR CUMBU. (<i>Pennisetum typho- ideum</i> .)			MARUA OR RAGI. (<i>Eleusine Corocana</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...
...
...
...
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...	19 8	25 0	26 0	...
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...
...	23 0	23 0	17 10	...
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...	22 0	22 0	20 0	...
...	14 0	...
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...	26 0	26 0	19 4
...	36 0	38 12	26 0
...
...

13642

OF 40 SEERS.

MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN ITALIAN MILLET. (<i>Setaria italica</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
...	4 5 7 4	0 4 2 0 0	...
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...
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...
18 0	18 0	...	1 15 0 2	0 0 3 6 0	...
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...
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13666

[illegible]

KANGSI OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOEA, KADALAY OR SUNAGA. (<i>Cleor arifinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

100	000	000	12 12	13 0	13 0
000	000	000	12 0	12 0	12 0
100	000	000	10 10	11 7	16 0
000	000	000	12 0	10 0	

15	0	15	0	11	0	20	0	20	0	18	0
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...	23 0	22 0	19 0
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22	0	22	0	18	13
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21	0	19	0	17	0
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244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697
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16	0	16	0	11	0	11	0	11	0	16	0
						23	0	23	0	16	8

10	0	23	10	23	1	21	0
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21	7	21	7	17	10
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...	23-0	23-0	20-0
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23	0	29	0	18	0
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17	0	17	0	16	0
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(Kali.)

...	14 7	14 7	19 11
				(Kalal.)	
			14 7	13 8	15 10

14	7	10	2	10	10
14	0	14	0	14	0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1

16 0 10 8 14 8

000	000	000	100	200	300
-----	-----	-----	-----	-----	-----

...	14 0	14 0	12 0
-----	-----	-----	------	------	------

...	...	...	13 0	13 0	12 0
			17 4	17 8	14 8

200	200	200	200	200	200
-----	-----	-----	-----	-----	-----

BAJRA OR CUMBU. (<i>Pennisetum typho-</i> <i>ideum</i> .)			MARUA OR RAGI. (<i>Rousina Corocana</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

Figure 1 shows a 6x6 grid of points. The points are arranged in a regular pattern, with some points highlighted in black and others in white. The grid is labeled with coordinates (x, y) ranging from 0 to 5 on both axes.

$$19 \quad 4 \mid 15 \quad 14 \mid 13 \quad 2 \mid \dots \mid \dots \mid \dots$$
[illegible]

000	000	000	000	000	000
000	000	000	000	000	000

0000	0001	0010	0011	0100	0101
------	------	------	------	------	------

000	000	000	000	000	000
-----	-----	-----	-----	-----	-----

000	001	002	003	004	005
-----	-----	-----	-----	-----	-----

100	150	200	250	300	350
-----	-----	-----	-----	-----	-----

000	000	000	000	000	000
-----	-----	-----	-----	-----	-----

100 200 300 400 500 600

000	000	000	000	000	000
-----	-----	-----	-----	-----	-----

10	22	33	44	55	66
----	----	----	----	----	----

...	13	0	11	0	12	0
-----	-----	-----	----	---	----	---	----	---

A gel electrophoresis image showing a single band in the lane labeled '002'. The lanes are labeled '000', '001', '002', and '003' from left to right. The band in lane '002' is a dark, horizontal line.

001	002	003	004	005	006
-----	-----	-----	-----	-----	-----

000	000	000	000	000	000
-----	-----	-----	-----	-----	-----

100	200	300	400	500	600
-----	-----	-----	-----	-----	-----

• 1362a

• 1362a

Head-quarter Station Bazars of the Districts of Bengal on the 15th June, 1890.

												WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.
INDIAN-CORN, OR MAIZE. (Zea Mays.)			ARHAR OR TUR, CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			SALT.			
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
...	19 8	19 0	18 8	100 0	100 0	107 6	10 0	10 0	9 14	3 11 6	3 11 0	3 11 3	Burdwan.
26 0	26 0	19 0	20 0	20 8	15 0	280 0	280 0	240 0	10 0	10 0	10 0	3 15 0	3 15 0	3 15 0	Bankura.
...	18 8	13 8	...	160 0	160 0	160 0	10 8	10 0	10 0	3 10 0	3 10 0	3 14 0	Barbhoom.
...	13 0	13 0	12 0	160 0	160 0	160 0	10 2	10 0	10 4	3 14 6	3 14 6	3 14 0	Midnapore.
...	11 0	11 0	13 0	120 0	120 0	120 0	9 0	9 0	9 0	3 11 6	3 11 6	3 11 6	Hooghly.
...	13 0	13 0	13 0	190 0	100 0	100 0	10 0	10 0	10 8	3 11 0	3 11 6	3 10 6	Howrah.
Central Districts.															
17 8	17 10	...	16 8	16 5	15 14	92 8	93 0	100 0	10 7	10 7	10 9	3 9 5	3 9 6	3 8 4	Calcutta.
...	17 0	17 0	16 0	100 0	100 0	100 0	10 0	10 0	10 8	3 8 6	3 9 6	3 8 6	24-Pergunnahs.
...	17 12	19 0	16 0	...	...	...	9 13	9 13	9 13	3 14 0	3 14 0	3 14 0	Nuddea.
...	160 0	160 0	160 0	9 12	9 8	9 0	4 0 0	4 4 0	4 0 0	Khoolna.
...	18 0	18 0	18 0	160 0	160 0	160 0	9 2	9 2	9 2	4 0 0	4 0 0	4 0 0	Jessore.
...	18 0	16 0	18 0	200 0	200 0	200 0	10 10	10 12	9 10	3 12 0	3 12 0	3 12 6	Moorshedabad.
...	15 12	15 12	18 0	180 0	180 0	160 0	9 8	9 8	10 0	4 0 0	4 0 0	3 15 0	Dinajepore.
...	18 0	18 12	18 12	240 0	240 0	240 0	9 0	9 0	8 13	4 2 8	4 2 8	4 1 4	Rajshahye.
...	10 5	10 5	13 0	100 0	100 0	120 0	9 6	9 6	9 6	4 4 0	4 4 0	4 4 0	Rungpore.
...	90 0	90 0	90 0	9 0	9 0	9 9	4 4 0	4 4 0	4 2 8	Bogra.
...	18 0	17 10	17 4	200 0	200 0	200 0	8 11	8 11	9 2	3 15 6	3 15 3	4 1 0	Pubna.
11 0	12 0	13 0	8 0	8 0	8 0	120 0	120 0	120 0	8 0	8 0	8 0	5 0 0	5 0 0	5 0 0	Darjeeling.
...	13 0	12 0	11 0	128 0	128 0	128 0	9 0	9 0	9 0	4 3 0	4 2 0	4 0 0	Julpigoree.
Eastern Districts.															
...	13 0	13 0	16 0	100 0	100 0	100 0	9 12	9 8	10 0	4 0 0	4 2 0	3 15 0	Dacca.
16 0	15 0	...	10 0	10 0	10 0	120 0	120 0	120 0	10 0	8 8	9 0	3 14 0	4 12 0	4 0 0	Furzedpore.
...	12 8	12 8	12 0	120 0	120 0	120 0	10 0	10 0	10 0	3 15 0	3 15 0	3 15 0	Backergunge.
...	10 0	9 8	...	...	...	...	9 8	9 4	9 12	4 2 0	4 4 0	4 0 0	Mymensingh.

J At Thakurgaon retail price of salt 8 seers per rupee.

K In Nattore subdivision retail price of salt 9 seers per rupee.

L In subdivisions retail prices of salt per rupee are:—Nilphamari 9 seers, Gaibanda 8 seers.

M At Serajgunge retail price of salt 10 seers per rupee.

N At Siliguri wholesale price of salt Rs. 4-8 per maund.

O In Alipore subdivision (at Fallacatta) retail price of salt 10½ seers per rupee.

P In subdivisions retail prices of salt per rupee are:—Manickgunge 8 seers, Moonsheegunge 8 seers 14 chittacks, and Narain-

gunge 10 seers.

Q In subdivisions retail prices of salt per rupee are:—Patnakhali 9 seers, Perazepore 9 seers, and Bhola 8 seers.

R In subdivisions retail prices of salt per rupee are:—Kishoregunge 8 seers, Tangail 10 seers, Jamalpore 10 seers, Sherpore 8 seers, and Netrokona 8 seers.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the Head-quarter

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
Eastern Districts—concluded.																			
22	Chittagong	11 0	11 0	11 0	...	...	...	12 0	12 0	9 0	15 8	15 0	12 0	...	...	...
23	Noakholly	...	...	...	...	...	...	13 8	14 0	11 0	14 0	15 0	12 0	...	...	...
24	Tipperah	13 5	11 7	12 8	...	...	...	10 0	10 10	13 0	13 5	14 3	14 0	...	...	...
25	Chittagong Hill Tracts.	...	...	...	...	...	...	11 4	12 0	9 6	12 8	13 5	10 0	...	...	...
	Hill Tipperah*	...	6 0	6 0	...	...	...	...	8 0	8 0	...	13 0	14 0	...	...	...
BEHAR.																			
26	Patna	{ Red. 17 12 17 0 1 } White. 16 12 15 8 16 0			24 0	23 12	19 0	10 8	10 8	10 0	17 2	17 0	13 8	22 0	22 0	20 8			
27	Gya	16 8	16 0	15 8	23 8	23 0	21 0	11 8	11 8	8 4	16 0	15 8	12 8	...	...	...
28	Shahabad	15 0	15 0	14 0	22 0	20 0	20 0	8 0	8 0	9 0	15 0	14 0	13 0	...	...	...
29	Durbhunga	15 6	16 8	13 11	20 14	19 12	18 4	12 0	12 0	10 4	15 6	16 8	12 9	...	...	...
30	Muzaffarpore	17 0	16 0	13 0	20 6	21 8	16 6	9 0	11 0	9 0	16 0	14 0	12 0	...	...	...
31	Saran	16 4	16 0	13 12	21 0	21 8	18 8	8 12	8 8	8 8	13 14	14 4	12 2	...	...	...
32	Chumparan	16 0	16 0	14 0	24 0	24 0	17 0	8 8	8 8	7 0	15 0	15 0	11 0	...	...	...
33	Monghyr	18 2	17 13	17 5	21 0	23 1	21 0	14 11	15 12	10 8	16 0	17 13	14 0	...	...	...
34	Bhagulpore	17 11	16 11	14 8	21 7	22 11	17 10	{ Old. 10 1 10 1 } New. 13 14 13 14			{ Old. 13 14 13 10 } New. 16 6 16 6			...	...	...
35	Purneah	18 0	18 0	15 0	...	...	...	17 0	15 0	12 0	18 0	17 0	14 0	...	...	...
36	Maldah	18 12	18 0	15 0	...	...	...	9 0	8 0	11 0	14 0	14 0	13 0	...	...	...
37	Sonthal Perga.	13 0	13 0	12 8	...	...	...	18 0	13 0	12 0	16 0	16 0	14 0	...	...	...
ORISSA.																			
38	Cuttack	10 8	10 8	10 8	...	...	...	10 8	10 8	10 8	17 1	17 1	13 2	...	...	...
39	Pooree	10 8	10 8	10 2	...	...	...	17 1	17 1	11 13	21 0	21 0	14 7	...	...	...
40	Balasore	15 0	15 0	16 0	13 0	13 0	13 0	12 0	12 0	13 0	17 0	17 0	16 0	...	...	...
CHOTA NAGPORE.																			
South-West Frontier Agency.																			
41	Hazaribagh	14 8	14 8	12 12	18 0	18 0	16 0	9 0	9 0	8 0	16 0	16 0	13 8	...	...	...
42	Lohardugga	{ Red. 14 0 13 8 } White. 8 8 9 8			11 8	No sale	24 0	12 8	15 0	13 8	12 0	{ Coarse. 18 0 18 0 } Ordinary. 16 0 16 0				
43	Singbhoom	12 0	12 0	10 0	14 0	14 0	14 0	16 0	16 0	16 0	20 0	20 0	20 0	...	...	...
44	Manbhoom	14 0	14 8	12 4	...	...	...	13 0	14 0	13 0	20 0	18 0	17 8	...	...	...

* Present return not received.

† Price of common rice at Jajpore 19 seers 11 chittacks and Kendrapara 23 seers 10 chittacks per rupee.

‡ Ditto ditto in Khorda subdivision 17 seers 1 chittack per rupee.

§ At Cox's Bazar retail price of salt 8 seers per rupee.

|| At Feni Hant retail price of salt 8 seers per rupee.

U In subdivisions retail prices of salt per rupee are:—Buxar 10 seers, Saaseram 10½ seers, and Bhabush 9 seers.

V In subdivisions retail prices of salt per rupee are:—Samastipore 11 seers and Madhubani 10 seers.

CALCUTTA,
The 24th June, 1890.

Station Bazars of the Districts of Bengal on the 15th June 1890—(concluded).

												WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS.																
INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR. CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			SALT.																			
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.																	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. a. p.	Rs. a. p.	Rs. a. p.																	
...	...	...	...	...	...	110	0 130	0 10	0 9	0 10	8	9	0 3	14	0 3	12	0 4	0 0	Chittagong.												
...	...	...	8	0	8	0	8	0	...	...	...	9	0	9	0	9	0	4	0	0	4	0	0	4	0	0	Noakholly.				
...	...	...	8	0	8	14	9	0	...	...	...	9	11	9	11	9	0	4	2	0	4	2	0	4	4	0	Tipperah.				
...	...	...	...	...	...	320	0 320	0 320	0	8	0	8	0	8	0	8	0	4	8	0	...	...	...	...	...	...	Chittagong Hill Tracts.				
...	...	...	...	8	0	8	0	...	...	...	...	8	0	8	0	...	...	4	6	0	4	6	0	...	...	...	Hill Tipperah.				
																			BEHAR.												
...	...	19	0	24	0	22	0	21	0	120	0 13	0 130	0 10	0	10	0	10	0	3	13	0	3	14	0	3	12	6	Patna.			
...	...	...	...	21	0	21	0	17	0	160	0 160	0 200	0	9	2	9	2	9	2	4	2	0	4	2	0	4	2	0	Gya.		
...	...	...	...	21	0	20	0	13	8	140	0 160	0 160	0 10	0	10	0	10	0	3	15	0	3	15	0	3	15	0	Shahabad.			
19	12	19	8	16	0	20	14	20	14	18	13	160	0 16	0 160	0 11	0	11	0	11	6	3	8	0	3	8	0	3	8	0	Darbhunga.	
20	0	18	0	16	0	20	0	20	0	18	0	160	0 160	0 160	0 10	0	10	0	10	0	4	0	0	4	0	0	3	12	0	Mozufferpore.	
22	0	19	8	17	4	20	8	20	0	20	0	160	0 160	0 160	0	9	12	9	12	10	0	4	1	6	4	2	3	15	0	Sarun.	
...	...	21	0	15	0	21	0	22	0	19	0	160	0 160	0 160	0 10	0	10	0	9	8	3	12	0	3	12	0	4	1	0	Chumparan.	
21	0	16	13	8	6	20	7	19	1	17	5	147	0 147	0 147	0	9	15	9	15	9	8	3	12	6	3	13	6	3	12	6	Monghyr.
21	7	22	11	16	6	20	8	20	3	17	10	176	12 176	12 176	12	10	1	10	1	10	1	3	15	6	3	15	6	3	13	0	Bhagalpore.
...	...	...	...	14	0	15	0	...	...	13	0	130	0	...	9	0	9	0	...	4	7	0	4	7	0	...	...	...	Purneah.		
...	...	...	...	...	...	...	...	...	...	120	0 140	0 120	0	9	8	9	0	9	8	4	2	0	4	3	0	4	2	0	...	Maldab.	
20	0	20	0	16	0	20	0	21	0	19	0	200	0 200	0 200	0	9	0	9	0	9	0	4	0	0	4	0	0	4	3	0	Sonthal Pergna.
																			ORISSA.												
...	...	...	...	18	6	18	6	13	2	80	0 80	0 80	0	8	0	8	0	8	0	4	7	0	4	7	0	4	7	0	...	Cuttack.	
...	...	...	...	13	2	13	2	14	7	80	0 80	0 80	0 10	8	10	8	9	13	3	8	0	3	8	0	3	12	0	...	Pooree.		
...	...	...	...	...	...	...	...	...	...	160	0 160	0 160	0 10	0	10	0	9	0	3	14	0	3	14	0	4	0	0	...	Balasore.		
																			CHOTA NAGPORE												
																			South-West Frontier Agency												
10	0	20	0	15	0	20	0	23	0	115	0 320	0 320	0 320	0	8	0	8	0	8	0	4	4	0	4	4	0	4	6	6	Hazaribagl.	
32	0	28	0	14	{	19	0	18	0	12	0	130	0 120	0 170	0	8	8	8	8	7	8	4	10	0	4	11	0	5	0	0	Lohardugga.
						26	0	25	12	14	0																				
14	0	14	0	22	0	16	0	16	0	15	0	240	0 240	0 200	0	8	8	8	8	7	0	4	12	0	4	12	0	5	8	0	Singbhoom.
26	0	32	0	25	0	18	0	20	0	16	0	200	0 200	0 200	0	9	2	9	2	9	0	4	2	0	4	2	0	4	2	6	Manbhoom.

W In subdivisions retail prices of salt per rupee are :—Hajipore 9½ seers and Sitamarhi 9 seers.

X At Bettiah retail price of salt 10 seers per rupee.

Y In subdivisions retail prices of salt per rupee are :—Begusarai 9½ seers and Jamui 9½ seers.

Z In subdivisions retail prices of salt per rupee are :—Kishengunge 8 seers and Arraoh (Raneegunge) 10 seers.

Z1 In Khoorda subdivision retail price of salt 7 seers per rupee.

Z2 At Bhudruk retail price of salt 8 seers per rupee.

Z3 At Govindpore retail price of salt 9 seers per rupee.

Published for general information.

P. NOLAN,
Secy. to the Govt. of Bengal.

PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.		
	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1 Calcutta ...	2 11 3	2 11 8	2 14 2	2 3 0	2 0 0	2 3 10	4 3 7	4 7 0	4 5 6	2 13 10	2 12 1	2 14 7
2 Serajgunge ...	2 4 0	2 5 0	2 8 0	...	...	...	4 12 0	5 0 0	4 3 0	2 13 0	2 14 0	3 4 0
3 Dacca ...	3 0 0	3 0 0	3 0 0	2 7 0	2 7 0	1 8 0	3 4 0	3 4 0	3 8 0	3 0 0	3 0 0	3 1 0
4 Naraingunge ...	...	...	...	...	...	...	3 2 0	3 0 0	3 0 0	2 14 0	2 14 0	2 13 0
5 Chittagong ...	3 8 0	3 8 0	3 9 0	...	...	...	3 4 0	3 4 0	4 8 0	2 8 0	2 10 0	3 4 0
6 Patna ...	2 3 0	2 5 6	...	1 10 3	1 10 8	2 1 0	3 12 0	3 12 0	3 14 0	2 5 0	2 5 6	2 14 0
7 Balasore ...	2 8 0	2 8 0	2 8 0	3 0 0	3 0 0	3 0 0	3 4 0	3 4 0	3 8 0	2 4 0	2 4 0	2 8 0
8 Pooree ...	...	...	...	...	...	...	...	...	...	1 14 0	1 14 0	2 6 0
9 Outtack ...	3 10 0	3 10 0	3 10 0	...	...	...	3 10 0	3 10 0	3 10 0	2 2 0	2 2 0	3 0 0

CALCUTTA.
The 24th June, 1890.

in the undermentioned *Marts* of Bengal on the 15th June, 1890.

GRAM, CHANA, CHHOLA, KADALAY OR SUKAGA. (<i>Cicer Arietinum</i> .)			INDIAN-CORN OR MAIZE. (<i>Zea Mays</i> .)			ARHAR OR THUR, CAJIAN PEA. (<i>Cajanus indicus</i> .)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 0 6	2 2 1	2 6 4	2 1 0	2 0 6	...	2 3 2	2 3 1	2 4 4	0 5 9	0 5 9	0 5 6	3 9 5	3 9 6	3 8 4	Calcutta.
2 8 0	2 7 0	2 6 0	...	...	...	...	...	...	...	...	...	3 13 0	3 14 0	4 0 0	Serajgunge.
2 12 0	2 12 0	2 12 0	...	...	...	3 0 0	3 0 0	2 6 0	0 4 0	0 4 0	0 4 0	4 0 0	4 2 0	3 15 0	Dacca.
3 4 1	3 4 0	2 8 0	...	...	...	3 14 0	3 14 0	3 12 0	0 8 0	0 8 0	0 10 0	3 12 0	3 12 0	3 12 0	Naraingunge.
3 2 0	3 0 0	3 0 0	...	...	...	...	...	...	0 5 4	0 5 4	0 7 0	3 14 0	3 12 0	4 0 0	Chittagong.
1 12 6	1 12 0	1 12 9	...	...	2 1 0	1 10 3	1 12 0	1 14 0	0 5 6	0 5 0	0 5 0	3 12 0	3 14 0	3 12 6	Patna.
2 12 0	2 12 0	2 12 0	...	...	...	...	...	...	0 4 6	0 4 6	0 4 6	3 14 0	3 14 0	4 0 0	Balasore.
...	...	...	...	...	...	...	...	...	...	...	...	3 8 0	3 8 0	3 12 0	Pooree.
2 10 0	2 10 0	2 0 0	...	...	...	2 2 0	2 2 0	3 0 0	0 8 0	0 8 0	0 8 0	4 7 0	4 7 0	4 7 0	Cuttack.

Published for general information.

P. NOLAN,
Secy. to the Govt. of Bengal.

The following Statement shows the Quantities of the Principal Staples of Traffic imported into Calcutta from the Interior during the month of March, 1890.

IMPORTS INTO CALCUTTA.

Whence imported.	FOOD-GRAINS.							FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	RICE AND PADDY.			Wheat.	Gram and pulses.	Other food-grains.	Total.	Jute, raw.	Gunny-bags.	Linseed.	Mustard seed.				Domestic.	Undomestic.	Manufactured.	Manufactured.
	Rice.	Paddy.	Total (in rice).															
BENGAL.																		
Burdwan	1,95,902	4,763	1,98,821	177	8,723	38	2,02,770	69	7,840	5,019	207	.....	.....	50	.....	37	.....	53
Boerhoom	1,37,576	7	1,37,580	844	4,880	.....	1,43,394	799	3,675	2,036	501	.....	.....	230	.....	48	.....	.....
Midnapore	3,01,457	18,037	3,12,750	300	3,000	.....	3,13,350	430	20,250	35,073	137	.....	.....	41	.....	293	.....	.....
Hooghly	60,172	23,308	80,740	757	7,310	27	83,844	33,401	392,656	10,378	2,240	.....	.....	37	18,777	6,156	132	.....
24 Pargannas	3,01,533	24,777	3,17,019	.....	17,063	.....	3,34,982	42,591	496,152	23,609	3,070	.....	.....	15,478	28,800	3,705	300	.....
Kaddes	10,231	41	10,257	8,061	85,498	2,318	1,04,754	10,008	1,175	1,56,587	501	.....	80	388	108	11,510	2,432	.....
Khulna	7,760	10,390	14,157	.....	3,006	.....	14,187	2,341	.....	200	.....	.....	.....	.....	100	11,975	.....	.....
Jessore	17,771	8,375	23,065	.....	.....	.....	26,011	7,982	.....	14,439	160	.....	.....	.....	557	19,312	1,120	.....
Moorsheadabad	30,490	.....	30,490	749	5,428	5	36,972	2,741	.....	5,344	315	.....	.....	.....	.....	.....	.....	.....
Dinapore	14,306	.....	14,306	300	1,630	.....	9,358	2,863	120,190	308	4,153	.....	2,400	.....	.....	7,714	.....	.....
Rajshahye	7,399	.....	7,399	.....	.....	.....	48	44,068	65,579	.....	.....	.....	.....	.....	1	.....	.....	.....
Rangpore	.....	.....	.....	.....	.....	.....	9,316	440	.....	106	.....	.....	.....	.....	.....	408	.....	.....
Bogra	9,216	.....	9,216	150	5,004	.....	5,804	2,64,863	312,725	.....	.....	.....	.....	.....	.....	215	.....	.....
Patna	750	.....	750	.....	.....	.....	.....	281	50,135	.....	.....	.....	.....	.....	.....	.....	.....	.....
Darjeeling	.....	.....	.....	.....	.....	.....	19,843	181,930	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jaipur	1,157	.....	1,157	.....	456	.....	1,643	2,03,433	35	2,646	.....	.....	5,881	.....	.....	.....	.....	.....
Dacca	1,125	280	1,405	.....	750	.....	1,980	53,360	175	2,131	9,405	1,233	.....	.....	150	1,360	100	.....
Farrukpore	5,19,640	.....	5,19,640	.....	.....	.....	5,19,640	2	90,487	.....	567	.....	.....	.....	.....	.....	.....	.....
Backergunge	3	.....	3	.....	.....	.....	3	800	.....	.....	500	.....	.....	.....	.....	.....	.....	.....
Mymensingh	5,725	.....	5,725	.....	.....	.....	5,725	874	.....	.....	2	4,126	.....	.....	.....	.....	.....	.....
Tippurah	2,729	.....	2,729	.....	.....	.....	2,729	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chittagong	12,304	1,425	13,695	.....	.....	.....	13,695	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Noakhali	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total of Bengal	16,43,212	91,173	17,00,196	11,918	1,32,183	2,388	18,46,686	8,06,930	1,615,528	2,53,921	34,403	64	15,830	1,378	16,570	92,474	22,172	585
BEHAR.																		
Patna	85	.....	85	162	63,915	5,556	68,948	594	245	67,100	15,774	.....	.....	.....	1,305	3,087	24	45
Gya	.....	.....	.....	2,128	311	.....	2,439	.....	385	85,101	12,041	.....	.....	.....	.....	3,385	.....	123
Shahabad	.....	.....	.....	1,190	.....	.....	1,190	.....	105	19,917	1,062	.....	.....	.....	.....	10,031	.....	.....
Monroepore	.....	.....	.....	.....	.....	.....	.....	.....	70	638	14,379	.....	.....	.....	.....	.....	.....	.....
Durrhanga	1,517	.....	1,517	580	290	.....	2,390	.....	7,770	580	37,361	.....	.....	.....	.....	305	183	12
Saran	359	.....	359	.....	.....	.....	359	451	315	321	1,717	.....	.....	.....	.....	.....	.....	.....
Chumpana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22,946	.....	.....	.....	.....	.....	.....	.....
Manchyr	.....	.....	.....	8,717	22,071	.....	30,788	.....	350	62,081	1,876	.....	.....	.....	.....	1,240	180	4
Bhadrupore	367	4	369	11,764	7,000	2,088	21,489	2,394	70	26,588	18,535	.....	.....	.....	.....	471	614	.....
Purneah	3,702	.....	3,702	721	703	.....	5,246	1,459	.....	582	10,725	.....	.....	.....	.....	.....	.....	.....
Maidah	1,915	.....	1,915	1,857	1,199	.....	4,271	1,372	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Northal Pergunahs.	2,433	.....	2,433	13,114	19,153	363	32,630	510	505	18,958	70,042	.....	.....	.....	.....	.....	.....	.....
Total of Behar	10,329	4	10,331	28,404	1,14,536	8,800	1,72,160	7,610	3,085	2,81,641	2,12,306	.....	.....	36	1,208	18,948	951	194
ORISSA.																		
Cuttack	.....	1,400	875	.....	.....	.....	875	153	400	.....	.....	.....	.....	.....	.....	.....	.....	.....
Balasore	1,10,880	20,723	1,23,832	.....	63	.....	1,23,897	2,788	599	.....	124	.....	.....	.....	.....	.....	142	.....
Total of Orissa	1,10,880	22,123	1,24,707	.....	63	.....	1,24,772	2,911	1,200	.....	124	.....	.....	.....	.....	.....	142	.....
CHOTA NAGPORE.																		
Hazaribagh	.....	.....	.....	.....	.....	.....	.....	.....	350	670	2,384	5	.....	17	.....	.....	.....	.....
Manbhum	5,664	.....	5,664	.....	.....	.....	5,664	.....	219	.....	206	53	.....	.....	.....	.....	.....	.....
Total of Chota Nagpore.	5,664	.....	5,664	.....	.....	.....	5,664	569	670	2,590	.....	58	.....	17	.....	.....	.....	.....
Grand Total of supplies from the Provinces under the Lieutenant-Governor of Bengal.	17,76,686	1,13,300	18,40,898	50,412	2,46,774	11,167	21,49,281	8,15,871	1,625,193	5,38,232	2,49,309	124	15,530	1,429	17,778	1,11,322	23,265	775
OTHER PROVINCES.																		
Assam	5,502	.....	5,502	.....	171	.....	5,733	7,931	.....	1,280	22,505	5,790	3,489	183	.....	2,251	.....	.....
North-Western Provinces and Oudh.	627	.....	627	1,07,513	24,767	.....	1,32,757	.....	490	55,277	22,182	156	64,766	3	.....	.....	.....	.....
Punjab	.....	.....	.....	620	5	.....	625	.....	.....	.....	.....	73	18,864	.....	.....	.....	.....	.....
Central Provinces	.....	.....	.....	3,665	43	.....	3,708	.....	245	2,358	.....	5	1	6	.....	.....	.....	.....
Rajputana and Central India.	.....	.....	.....	.....	.....	.....	.....	.....	.....	20,690	.....	.....	21,867	.....	.....	.....	.....	.....
Bombay	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,302	.....	.....	.....	.....	.....
Madras	.....	.....	.....	.....	8,186	.....	8,186	.....	.....	.....	1,682	.....	405	.....	871	.....	206	223
Burmah	8,124	310	8,518	.....	981	.....	9,239	.....	.....	.....	1,937	.....	6,834	.....	.....	.....	14	297
Other places	.....	.....	.....	.....	8	.....	8	12	1,041	1,700	.....	.....	.....	.....	75,275	.....	.....	.....
Grand Total 1890	17,84,437	1,13,610	18,55,443	1,02,019	2,50,935	11,214	23,09,602	8,24,843	1,627,718	6,23,447	2,97,565	0,148	1,39,957	1,021	93,924	1,15,673	23,488	1,374
of Imports in March 1890	14,40,643	1,64,414	15,45,492	1,03,871	2,38,632	12,783	20,88,685	6,12,469	1,885,332	4,70,185	2,41,500	5,089	1,52,106	2,041	47,090	1,27,982	11,931	13,376

* One maund of paddy is equivalent to 25 seers of rice. † Exclusive of bags obtained by local manufacture.

The Sea-borne Trade of Calcutta in these Staples during the month of March, 1890, was as follows:—

EXPORTED FROM CALCUTTA—																	
To Indian ports, viz.—																	
Bombay ...	10,440	30	10,450	.....	387	.....	10,846	.....	1,531,000	.....	17,326	566	.....	.....	244	.....	13
Other ports in Bombay ...	.....	.....	.....	471	.....	.....	.....	.....	17,550	.....	.....	.....	.....	.....	.....	.....	.....
Madras ...	471	.....	471	.....	150	12,377	299	13,297	.....	285,416	.....	1,940	.....	10	.....	.....	.....
Other ports in Madras ...	81,007	1,120	82,370	.....	482	2,355	.....	84,725	2,261	434,560	.....	3	.....	.....	.....	.....	25
Burmah ...	3,646	.....	3,646	.....	482	15,062	222	19,412	60	1,091,200	.....	59	208	.....	1,393	305	161
Other Indian ports ...	.....	.....	.....	.....	210	5,612	7	5,619	.....	310,962	.....	2	1	.....	1,409	2,082	149
Pondicherry ...	.....	.....	.....	.....	.....	329	.....	329	.....	100,500	.....	.....	.....	.....	.....	.....	.....
Total of Inter-port trade ...	1,05,224	1,156	1,05,946	.....	842	36,122	328	1,45,438	2,969	4,071,187	.....	17,326	2,515	259	10	3,046	2,385
To Foreign ports—																	
United Kingdom	1,84,139	.....	1,84,139	.....	.....	8,710	.....	1,92,849	5,81,630	1,449,800	3,64,550	5,453	33,820	23,374	584	260	.....
Other Foreign ports ...	6,62,800	2,915	6,64,712	.....	569	26,589	8,240	7,60,116	4,35,369	2,838,472	163	867	108	77,032	1,161	110	380
Total of Foreign trade ...	8,47,029	2,915	8,48,851	.....	569	35,499	8,240	8,02,965	10,76,339	4,289,278	3,64,683	6,310	33,928	1,01,811	1,745	316	380
Grand Total 1890 of Exports in Mass.	6,52,253	9,071	6,58,797	1,411	71,421	8,708	10,36,297	10,18,000	8,609,415	3,64,933	23,036	36,441	1,01,530	1,556	3,362	2,765	8,671
1889	14,06,170	2,450	14,05,580	35,908	98,503	6,608	16,34,344	10,68,622	12,638,021	2,94,023	8,222	15,079	94,914	1,089	5,677	15,019	16,141

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of March, 1890.

IMPORTS INTO CALCUTTA.

SPECIFICATION OF ROUTES.	FOOD-GRAINS.					FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food-grains.	Jute, raw.	Gunny-bags.	Linseed.	Mustard seed.				Drain- ed.	Un- drain- ed.	Unmanu- factured.	Manu- factured.
By country boats ...	Mds. 11,52,181	Mds. 80,601	Mds. 12,584	Mds. 84,444	Mds. 968	Mds. 2,78,525	No. 839,098	Mds. 75,570	Mds. 16,121		Mds. 3,728	Mds. 42	Mds. 5,575	Mds. 40,670	Mds. 5,000	Mds. 221
" river steamers ...	34,123	2,930		2,461		2,72,935		42,704	26,170	5,179	5,923	24				
" rail { East Indian Railway ...	3,61,023	8,860	1,47,420	1,38,210	8,830	9,959	23,705	3,72,961	2,20,397	294	1,05,604	823	1,308	20,603	770	235
" rail { Eastern Bengal State Railway ...	57,825		1,908	27,288	1,428	2,21,006	732,515	1,00,052	22,908	673	5,351	732		27,807	9,294	
" road ...	80,870	6,564		19,292		43,314	30,000	26,160						12,605	2,195	201
" sea ...	1,18,404	14,573		9,240		4,104	2,340	2,719		2	19,451		70,145		342	567
Grand Total of Imports in March 1890 ...	17,94,437	1,13,510	1,02,010	2,60,935	11,214	8,24,843	1,027,718	6,23,447	2,97,365	9,148	1,30,937	1,621	93,924	1,13,573	23,488	1,374
Imports in March 1889 ...	14,40,648	1,44,414	1,03,577	3,88,032	12,783	5,12,400	1,885,332	4,70,185	2,41,363	5,030	1,92,106	1,041	47,080	1,17,982	11,931	12,176

The following Statement shows the Values, Quantities, and Numbers of the Principal Staples of Traffic exported Inland from Calcutta during the month of March, 1890.

EXPORTS FROM CALCUTTA.

Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.	Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.				European.	Indian.				
BENGAL.													
	Rs.	Rs.	Mds.	Mds.	Mds.	No.		Rs.	Rs.	Mds.	Mds.	Mds.	No.
Burdwan	1,82,117		378	888	27,030	111,578	CHOTA NAGPORE.						
Beerbhoom	1,50,759	1,650	104	728	14,055	108,115	Hazaribagh	40,194			109	6,815	2,415
Midnapore	1,05,254		2,183		31,271	77,893	Singbhoom	12,696		2	239	899	735
Hoochly	1,05,413	4,000	409	132	5,545	52,066	Manbhoom	1,43,514	110	60	573	6,617	8,870
24 Pergunnahs	1,83,318	8,958	790		14,142	18,587	Total of Chota Nagpore	1,95,804	110	62	1,321	18,831	26,020
Nuddia	3,53,624	800	1,383		17,388	22,537	Grand total of supplies into the Provinces under the Lieutenant-Governor of Bengal	70,71,573	25,308	11,168	14,159	6,00,083	1,575,061
Khulna	69,563		66		7,343		OTHER PROVINCES.						
Jessore	1,27,146		632		10,834	3,440	Assam	3,11,708		677	571	16,586	20,365
Moorsheadabad	75,780	5,390	89	6	4,880	24,795	North-Western Provinces and Oudh	31,70,882	18,920	3,445	414	39,693	422,320
Dinapore	93,177		46		6,091	13,000	Punjab	5,54,332	13,310	808			51,485
Kaushalye	1,93,185		106		14,200	7,805	Central Provinces	37,737		146			275,000
Rungpore	1,29,067		126		11,259	3,115	Rajputana and Central India	55,986	110	117			71,479
Bosra	1,79,173		18		9,495	20,685	Nizam's Territory						
Pubna	1,09,760		37	6	21,540	8,585	Bombay	6,485	440				1,548,550
Darjeeling	64,701		61		7,112	1,610	Madras	38,373	400	235	746		712,925
Jalpaigore	53,975		34		6,881	1,820	Pondicherry	8,738					100,500
Dacca	8,56,926		2,027		24,944	8,970	Burmah	1,06,471		296	1,376	1	1,891,200
Furruckpore	1,12,090		475		24,328	5,775	Other places	10,508	5,554	5	9,158	27	4,288,278
Beckergunge	1,14,289		1,941		43,030	4,530	Grand Total of Exports in March 1890	1,24,45,309	64,942	16,910	26,424	6,62,400	11,068,294
Mymensingh	1,27,380		18		21,844		Exports in March 1889	1,32,58,878	72,810	25,408	12,672	6,98,353	15,049,595
Tripura					5,125		The Sea-borne Trade of Calcutta in these Staples during the month of March 1890 was as follows:—						
Chittagong	1,14,820		180	21	5,675	30,462	IMPORTED INTO CALCUTTA.—						
Noakhally					5,675			Rs.*	Rs.	Mds.	Mds.	Mds.	No.
Total of Bengal...	39,73,512	20,798	10,302	1,784	3,81,306	574,548	From Foreign Ports—						
BEHAR.													
Patna	3,78,567	660	107	208	19,760	137,060	United Kingdom	1,12,40,731		8,461		5,61,254	
Gya	2,48,850	2,200	22	652	12,330	32,480	Other Foreign ports	43,751		518		1,78,063	1,700
Shahabad	4,72,626		4	474	17,743	57,390	Total of Foreign Trade	1,12,93,482		8,979		7,29,347	1,700
Muzafferpore	2,01,006	1,430		86	7,218	12,843	From Indian Ports—						
Durghaunga	6,60,618		13	763	40,398	90,040	Bombay	10,278	1,03,820	73	10,857	12,975	
Saran	4,56,576	110		55	29,338	14,000	Madras	1,191	13,353	84		2,100	
Chumpanan	6,47,076		70	60	19,848	45,235	Other ports in Madras	70	496		97	10,728	
Monghyr	1,74,009		2	561	9,160	75,313	Burmah	8,668			1		
Bhagupore	1,86,543		45	630	21,941	101,053	Other Indian ports		950				550
Purneah	2,00,781		182	93	10,018	24,653	Total of Interport Trade	24,117	1,78,621	157	10,955	31,803	650
Malda					5,306		Grand Total of Im-ports in March 1890	1,13,17,399	1,78,621	9,136	10,955	7,61,159	2,540
Sonthal Pergunnahs	1,71,423		200	423	19,837	105,210	Imports in March 1889	1,21,03,710	1,80,691	18,843	10,317	6,90,009	14,700
Total of Behar ...	57,93,429	4,400	748	4,470	2,64,566	680,393	* As per tariff declaration value.						
ORISSA.													
Cuttack						27,500							
Balasore	1,03,800		26	6,684	3,390	228,600							
Total of Orissa	1,03,800		26	6,684	3,390	281,100							

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic exported from Calcutta during the month of March, 1890.

SPECIFICATION OF ROUTES.	COTTON PIECE-GOODS.		COTTON TWIST.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.		
	Rs.	Rs.	Mds.	Mds.	Mds.	No.
By country boats ...	1,49,467	4,800	1,797		2,07,275	65,700
" river steamers ...	4,61,708		1,506	577	24,741	131,078
" rail { East Indian Railway ...	80,61,894	44,330	5,000	7,789	2,83,403	1,700,010
" rail { Eastern Bengal State Railway ...	25,08,009		5,084		81,008	144,235
" road ...	2,08,010	8,938	929	70	4,845	6,887
" sea ...	4,33,503	5,954	735	17,088	708	8,030,415
Grand Total of Exports in March 1890 ...	1,24,45,309	64,942	16,910	26,424	6,62,400	11,068,294
Exports in March 1889 ...	1,32,58,878	72,810	25,408	12,672	6,98,353	15,049,595

STATISTICAL DEPARTMENT,
The 20th June, 1890.

P. NOLAN,
Secretary to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.
ORISSA.	Pooroo	Pooroo	29.515	29.527	-.012	Calm	280	93.7	19th June	78.1	14th June	90.2	80.2	85.2	-	85.3
	Gopalpore	Gopalpore	29.510	29.532	-.022	NNW & SSW	315	94.7	15th "	80.3	17th "	89.5	82.1	86.3	+.07	84.3
	False Point	False Point	29.518	29.539	-.021	Variable	257	91.5	14th & 16th June	76.1	14th & 15th June	89.0	78.7	83.9	-.22	84.9
	Cuttack	Cuttack	29.461	29.542	-.081	Calm	51.2	100.9	14th "	77.9	14th & 15th June	92.5	79.1	85.8	-.21	83.7
SOUTH-WEST BENGAL.	Balasore	Balasore	29.491	29.550	-.059	Variable	176.9	94.4	14th "	75.7	14th "	89.8	77.1	83.5	-.25	83.9
	South-West Midnapore	Saugor Island	29.531	29.557	-.026	SE	33.0	92.7	17th "	79.0	15th "	91.7	81.1	86.4	-.01	84.9
	South 24-Pergunnahs	Midnapore	29.470	29.560	-.090	S	127.5	98.3	14th "	77.1	14th "	91.1	78.3	84.7	-.28	85.3
	Midnapore	Midnapore	29.470	29.560	-.090	S	127.5	98.3	14th "	77.1	14th "	91.1	78.3	84.7	-.28	85.3
SOUTH-WEST BENGAL.	24-Pergunnahs	Calcutta	29.540	29.571	-.031	ESE	118.1	94.0	14th "	76.3	14th & 15th June	90.1	77.7	85.9	-.13	85.6
	Howrah	Howrah	29.491	29.561	0	South-westerly	97.9	93.6	14th "	78.4	14th "	92.5	79.4	86.0	-.09	83.8
	Hooghly	Hooghly	29.247	29.546	-.099	E	140.9	93.1	14th "	77.5	14th "	91.8	78.9	85.3	-	82.0
	Burdwan	Burdwan	29.491	29.577	-.086	ESE	110.1	96.5	19th "	79.3	20th "	94.3	79.4	87.1	+.07	81.3
SOUTH-WEST BENGAL.	Bankoora	Bankoora	29.515	29.582	-.067	E	117.7	93.7	14th "	76.3	14th "	92.5	78.7	85.6	+.02	82.2
	Beerbhoom	Beerbhoom	29.530	29.578	-.048	ESE	160.7	94.8	17th "	76.8	14th "	91.4	78.4	84.9	-.11	83.9
	West Burdwan	West Burdwan	29.550	29.590	-.040	South-easterly	94.7	95.8	14th "	77.9	14th "	91.5	79.7	85.6	+.05	83.3
	Moorshedabad	Moorshedabad	29.503	29.634	-.131	ESE	123.7	89.0	19th "	77.0	14th & 15th June	88.0	77.5	82.5	+.19	83.4
SOUTH-WEST BENGAL.	Nuddes	Nuddes	29.509	29.611	-.102	SE	103.3	90.8	14th June	76.8	15th "	85.4	78.2	80.3	-.03	83.1
	Jessore	Jessore	29.540	29.571	-.031	SE	210.2	87.0	17th, 18th & 19th June	76.3	16th "	86.6	77.9	82.3	+.05	81.7
	Khoolna	Khoolna	29.582	29.623	-.041	SE	120.3	90.5	14th "	77.4	15th & 16th June	88.1	78.5	83.3	-.01	81.6
	Chittagong	Chittagong	29.559	29.623	-.064	SSE	171.7	92.1	14th "	76.2	15th "	89.0	77.1	83.1	-.03	81.7
SOUTH-WEST BENGAL.	Commillah	Commillah	29.605	29.641	-.036	SE	170.8	92.9	17th "	76.7	15th & 19th June	89.0	77.7	83.2	+.10	81.6
	Mymensingh	Mymensingh	29.576	29.634	-.058	ESE	128.7	89.2	17th & 19th June	75.6	14th "	87.9	78.2	82.6	-.09	81.3
	Bogra	Bogra	29.538	29.601	-.063	E	111.7	92.3	14th & 17th June	76.6	14th "	90.5	78.5	84.5	+.15	82.3
	Pubna	Pubna	29.547	29.614	-.067	E	64.3	90.1	10th, 17th, 19th & 20th June	76.2	14th "	88.8	77.9	83.4	+.12	81.6
SOUTH-WEST BENGAL.	Rajshahye	Rajshahye	29.596	29.630	-.034	SE	139.4	92.8	14th "	77.0	14th "	91.0	79.6	85.3	+.17	82.3
	Maldah	Maldah	29.518	29.599	-.081	E	76.0	94.0	14th "	77.4	14th "	92.6	79.5	86.1	-	83.9
	Dinagopore	Dinagopore	29.482	29.601	-.119	South-easterly	136.3	93.1	14th "	79.1	20th "	90.0	80.3	85.2	+.19	80.3
	Hungpore	Hungpore	29.511	29.636	-.125	ESE	143.3	92.3	14th "	77.7	15th & 20th June	99.4	78.5	84.3	+.10	83.3
SOUTH-WEST BENGAL.	Jalpigoree	Jalpigoree	29.544	29.619	-.075	?	?	90.4	17th "	74.3	14th & 15th June	87.3	75.2	81.3	-.02	79.5
	Cooch Behar	Cooch Behar	29.471	29.597	-.126	NE & ESE	102.1	97.6	18th "	84.0	14th "	95.2	80.6	89.9	+.04	80.9
	Darjeeling Hill Tracts	Darjeeling	29.377	29.586	-.209	ESE	239.2	98.3	14th "	77.2	14th "	95.2	80.1	87.7	-	83.3
	Purneah	Purneah	29.420	29.586	-.166	ESE	160.7	96.4	14th & 15th June	?	?	93.1	?	?	?	83.6
SOUTH-WEST BENGAL.	North Bhagulpore	North Bhagulpore	29.366	29.593	-.227	ENE	227.6	98.2	14th, 15th & 17th June	71.8	15th & 16th June	92.5	76.6	84.6	+.23	82.1
	Mozufferpore	Mozufferpore	29.355	29.545	-.190	ESE	176.9	90.3	18 & 19 "	78.6	14th & 20th June	97.6	81.0	89.3	0	87.1
	Durbhunga	Durbhunga	29.185	29.534	-.349	ESE	117.1	102.9	16 & 18 "	70.0	20th "	100.8	81.7	91.3	+.13	83.7
	Chumpan	Chumpan	29.399	29.539	-.140	ENE	234.1	100.4	18th "	77.7	14 & 20 "	98.5	81.2	89.9	+.08	85.9
SOUTH-WEST BENGAL.	Saron	Saron	29.260	29.643	-.383	ESE & E	178.3	101.9	19th "	76.6	20th "	100.1	82.8	91.6	+.09	87.9
	Gya	Gya	29.175	29.540	-.365	E	119.1	103.5	16th & 17th June	76.8	20th "	101.3	82.6	92.0	+.27	87.3
	Paine	Paine	29.365	29.547	-.182	E	218.3	102.0	19th "	78.2	20th "	90.2	81.3	90.2	+.18	87.1
	South Bhagulpore	South Bhagulpore	29.402	29.563	-.161	Calm	106.6	99.2	14, 15, 16, & 18 June	78.9	20th "	98.9	79.9	86.9	+.11	84.1
SOUTH-WEST BENGAL.	Monghyr	Monghyr	29.027	29.505	-.478	SE	297.6	96.5	19th "	77.7	14th "	94.8	79.3	87.1	-.01	83.7
	South 24-Pergunnahs	South 24-Pergunnahs	27.572	29.555	-.083	S	242.8	94.5	15th "	75.6	14th "	90.5	74.6	82.6	-.04	79.7
	Hazaribagh	Hazaribagh	27.445	29.545	-.100	Calm	161.2	91.0	15th "	71.9	14th "	88.6	73.4	81.0	-.30	78.5
	Lohardugga	Lohardugga	28.777	29.535	-.758	Variable	72.4	97.8	14th "	77.2	14th "	93.0	78.4	85.7	-.23	82.4
SOUTH-WEST BENGAL.	Manbhoom	Manbhoom	29.352	29.587	-.235	Variable	?	91.1	16th "	75.0	16th "	88.1	76.4	82.3	-.13	79.9
	Singbhoom	Singbhoom	29.518	29.635	-.117	North-easterly	108.6	97.7	14th & 16th June	73.8	14th "	85.4	76.3	80.8	-.10	78.6
	Assam	Assam	29.565	29.671	-.106	Variable	60.7	91.3	17th & 20th June	76.2	15th & 18th June	89.8	77.3	83.6	+.14	81.4

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The numbers are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations for the period in question during the past year in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 20th of June 1890.

				DISTRICT OBSERVATIONS.													
Average humidity at 8 A.M.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	OF WEEK. Mean for district. Normal mean.	RAINFALL.								Representative station.	DISTRICT.				
				Since 1st of month.			Since 15th May 1890.			Average number of rainy days.	Normal number of rainy days.						
				Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.								
80	7.6	0.02	2.00		4.16				5.87			3.3	Pooree	Pooree	ORISSA.		
80	6.6	0.12											Gopalpore				
83	7.0	4.8											False Point				
81	7.4	3.93	2.82		5.17				7.24			3.4	Cuttack	Cuttack			
84	4.1	2.26	2.47		4.86				7.43			3.1	Balasore	Balasore	SOUTH-WEST BENGAL.		
83	8.1	2.36	2.82	2.48	4.73	5.77	-1.04	11.70	8.01	+3.69	6.0	3.3	Sankor Island	South-West Midnapore			
83	4.3	2.00	3.81	2.85	5.44	6.24	-0.69	11.04	8.28	+3.36	5.3	3.5	Midnapore	Midnapore			
87	7.4	1.78	2.77	2.57	5.87	6.04	-0.77	10.51	9.31	+1.20	5.1	4.0	Calcutta	24-Pargunnahs			
85	8.4	0.00	1.09	2.14	0.08	5.88	+0.10	8.91	8.50	+0.41	3.7	3.4	Burdwan	Burdwan	SOUTH-WEST BENGAL.		
87	8.0	1.22	1.45	3.25	4.79	6.46	-1.06	8.85	8.57	+0.28	4.0	4.0	Bankoora	Bankoora			
89	7.6	0.61	1.23	2.71	5.03	6.05	-1.02	6.30	8.05	-1.25	2.5	3.8	Raneegunge	Neoghoom			
90	8.6	1.66	1.80	2.98	4.59	6.06	-1.36	7.18	9.07	-1.89	2.5	3.7	Berhampore	Moorshedabad			
84	7.7	0.83	1.38	2.34	3.25	6.91	-1.56	9.14	10.41	-1.27	3.8	3.8	Krishnagar	Nuddea	EAST BENGAL.		
88	5.7	1.90	1.07	3.33	4.71	8.51	-3.80	9.37	11.53	-2.21	4.3	4.3	Jessore	Jessore			
													Khoolna	Khoolna			
77	5.4	0.40	2.15	8.79	6.11	10.47	-13.36	10.00	21.74	-14.14	4.5	2.5	Chittagong	Chittagong			
																EAST BENGAL.	
87	7.7	4.19	3.09	4.82	4.86	12.57	-7.71	10.92	16.43	-5.54	0.8	4.9	Barrisal	Backergunge		EAST BENGAL.	
88	3.0	3.21	4.12	7.09	7.69	18.80	-11.11	15.70	23.37	-7.87	5.0	4.8	Noakholly	Noakholly			
91	5.0	1.04	0.07	2.91	4.20	8.61	-4.41	7.74	12.94	-5.20	2.7	4.3	Furzedpore	Furzedpore			
89	9.0	0.93	1.43	3.12	5.30	9.02	-3.72	10.07	13.08	+0.89	4.8	4.7	Dacca	Dacca			
84	4.4	3.45	4.12	4.69	5.24	11.53	-3.29	14.43	16.07	-1.64	4.5	4.7	Commillah	Tipperah		NORTH BENGAL.	
90	7.4	2.07	3.67	4.14	11.23	12.30	-1.07	18.80	17.25	+1.55	4.2	4.6	Mymensingh	Mymensingh			
88	8.3	0.49	1.48	2.97	7.28	8.40	-0.82	11.95	12.90	-1.04	2.0	4.1	Bogra	Bogra			
90	8.4	1.05	0.25	2.48	5.73	7.77	-2.04	11.58	11.57	+0.31	3.0	4.1	Serajunge	Pabna			
87	8.4	1.00	1.04	2.78	6.61	6.88	-0.27	11.31	10.39	+0.92	3.3	3.4	Rampore Bazaar	Rajshahye		NORTH BENGAL.	
91	5.3	1.15	1.11	3.04	6.26	6.30	-0.13	8.68	9.17	-0.49	3.5	3.7	Maldah	Maldah			
91	6.1	1.58	1.05	3.56	9.85	8.11	+1.74	13.32	12.28	+1.04	2.6	3.7	Dinapore	Dinapore			
87	4.0	1.98	2.63	3.05	10.82	13.71	+0.11	24.07	21.10	+2.97	4.3	4.0	Rungpore	Rungpore			
92	3.0	10.58	6.08	7.57	35.28	19.24	+16.42	38.80	28.00	+10.80	4.3	5.4	Jalpigoree	Jalpigoree		NORTH BENGAL.	
97	0.7	0.36	0.34	8.56	19.86	10.96	+1.50	22.69	23.74	-1.05	6.8	5.4	Darjeeling	Darjeeling Hill Tracts		NORTH BENGAL.	
87	7.0	4.89	2.90	3.96	9.90	7.21	+2.69	12.08	10.25	+1.83	3.0	3.6	Purneah	Purneah			
86	4.4	1.61	0.81	3.27	2.68	4.45	-1.83	4.40	5.62	-1.42	2.3	2.7	Mozufferpore	Mozufferpore		NORTH BENGAL.	
85	7.1	2.97	1.41	2.97	3.70	4.96	-0.96	4.89	6.03	-1.14	2.7	2.7	Durbhunga	Durbhunga			
85	6.0	2.39	2.62	2.58	4.07	4.58	+0.30	6.00	6.03	+2.76	4.0	3.1	Motihari	Chumparan			
77	3.7	0.22	2.03	1.68	3.16	2.95	+0.21	4.28	4.08	+0.75	3.0	2.5	Chupra	Saran			
97	3.4	2.10	2.31	1.41	2.59	2.10	+0.79	3.48	2.97	+0.51	2.0	2.4	Dehree	Shahabad		SOUTH BENGAL.	
99	2.9	0.89	0.21	2.31	1.41	2.59	2.10	+0.79	3.48	2.97	+0.51	2.0	2.4	Buxar	Shahabad		
98	4.3	0.51															
67	5.0	0.82	1.11	2.03	2.13	2.92	-0.79	3.04	4.29	-1.25	1.5	2.3	Gya	Gya			
72	4.4	0.57	2.32	2.32	3.10	2.95	+0.21	4.28	4.08	+0.75	3.0	2.5	Bankipore	Patna		SOUTH BENGAL.	
82	6.9	0.82	2.17	2.14	3.74	3.74	0	5.91	6.38	+0.55	1.4	2.8	Bhagulpore	South Bhagulpore			
77	12.7	1.12	1.23	3.00	4.11	6.93	-1.15	6.48	7.69	-1.21	1.8	5.7	Doomka	Sonthal Pargunnahs			
86	5.4	0.91	1.35	2.69	5.25	4.50	-1.25	3.89	6.06	-2.17	2.2	3.4	Hazaribagh	Hazaribagh		CHUTIA NAGPUR.	
80	7.7	2.20	2.53	2.20	4.75	4.75	-2.46	3.73	5.77	-2.03	3.0	3.7	Ranchi	Lohardugga			
79	7.3	1.06	1.18	2.92	2.95	5.16	-2.21	6.04	7.73	-1.69	3.0	4.2	Chyebassa	Singbhoom		ASSAM.	
97	9.2	4.13															
98	8.6	1.71															
90	7.9	1.76															

ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal mean 17 years. The means of the district are the numerical average of the rainfall return received in the district, i.e., from total rainfall at the subdivision.

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 20th of June, 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1890.	Average rain-fall from 1st May to date.
			Saturday, 16th June.	Sunday, 17th June.	Monday, 18th June.	Tuesday, 19th June.	Wednesday, 20th June.	Thursday, 21st June.	Friday, 22nd June.	Number of rainy days.	of Rainfall week.				
OBISEA	Pooree	Pooree	3.10	0.14	.....	0.05	0.15	1.75	1.97	6	7.13	4.74	5.70	9.58	5.17
		Khurda	3.88	.....	1.53	0.00	0.07	1.41	.....	.....	.....	5.07	5.07	.....	7.15
		Banpur	.....	0.15	.....	0.20	0.07	.....	.....	.....	.....	4.37	4.37	.....	8.23
		False Point	0.94	2.24	0.43	0.00	0.02	0.07	0.53	7	4.64	7.71	3.50	10.02	5.00
		Gop	.....	.....	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cuttack	Satpura	.....	.....	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Pipili	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Jagatsingapore	.....	1.10	1.00	0.30	0.00	0.27	.....	.....	.....	.....	5.53	.....	4.90
		Banki	0.55	0.10	2.60	.....	0.37	0.01	0.26	6	6.33	10.70	6.83	13.98	7.11
		Cuttack	0.23	4.75	0.12	.....	0.30	0.00	0.28	4	0.70	2.97	4.09	6.58	6.73
	Balasore	Kendrapara	.....	0.05	0.37	.....	.....	.....	0.17	3	4.80	0.08	5.17	12.00	7.70
		Jajpore	3.55	0.44	0.02	.....	0.08	.....	0.13	.....	.....	.....	.....	.....	.....
		Dharmasala	0.07	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Satipore	1.00	0.10	1.50	.....	0.50	.....	.....	.....	.....	.....	.....	.....	.....
		Chandbali	.....	1.00	0.00	.....	0.20	0.80	.....	4	2.00	0.03	4.43	0.27	0.00
SOUTH-WEST BENGAL.	Midnapore	Bhuddruck	1.45	2.80	0.30	0.30	0.02	0.70	0.85	7	0.62	4.03	4.03	12.58	7.23
		Sorah	.....	0.10	.....	.....	0.80	.....	2.40	3	2.50	0.55	4.10	13.85	7.23
		Balasore	0.13	.....	0.14	.....	.....	1.15	0.09	4	2.01	0.78	4.67	12.21	7.43
		Jellapore	.....	.....	0.50	0.21	.....	0.50	0.10	4	1.31	4.80	4.80	10.00	6.00
		Haripodah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	24-Pargunnahs	Diamond Harbour	.....	0.18	0.12	0.73	0.04	0.25	2.60	6	3.91	5.80	5.80	11.20	8.70
		Canning Town	.....	0.20	0.10	0.28	0.04	0.32	0.37	5	1.50	5.40	5.40	9.20	8.70
		Alipore Jail	0.44	0.03	0.40	0.04	0.26	0.23	0.53	7	1.53	5.92	5.92	10.11	9.50
		Barrackpore	0.61	.....	0.50	0.35	0.06	0.44	0.35	8	1.55	8.80	7.19	8.74	9.00
		Dum-Dum	4.06	0.10	.....	0.13	0.23	0.05	0.50	5	5.19	6.60	7.04	9.82	9.00
	Howrah	Barasat	0.26	.....	0.18	.....	.....	0.50	0.14	3	1.24	8.14	6.35	9.74	9.11
		Busserhat	1.41	.....	0.11	.....	0.26	0.35	0.14	8	2.27	7.31	7.21	13.46	11.25
		Howrah	1.70	.....	0.00	0.28	0.08	0.20	0.08	5	5.29	5.67	6.65	8.68	8.00
		Mohesraka (Ooloberiah)	4.45	0.08	0.23	0.38	0.11	0.77	1.43	7	7.45	13.83	6.21	19.39	9.75
		Hooghly	.....	0.02	.....	0.23	0.45	.....	0.32	5	1.73	4.43	6.77	8.09	8.80
	Burdwan	Serampore	0.51	.....	.....	0.32	0.18	0.29	4	1.23	4.61	5.06	8.60	8.00	8.00
		Hooghly	0.21	.....	0.28	0.03	0.73	0.17	5	1.41	3.10	3.95	8.20	8.70	8.70
		Jehanabad	0.58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Culina	0.21	.....	0.70	.....	0.20	0.32	4	2.64	6.26	5.83	8.91	8.00	8.00
		Burdwan	0.07	0.05	0.14	.....	0.25	0.34	2	0.61	6.44	6.99	9.51	7.00	7.00
Rankoora	Cutwa	.....	.....	.....	0.04	.....	0.02	0.02	4	0.01	3.02	4.80	5.50	6.00	
	Kaneerunge	0.05	.....	.....	.....	0.13	.....	1.42	2	1.60	3.30	.....	7.50	.....
	Mankur	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rankoora	0.20	.....	0.12	0.11	0.06	0.03	5	1.31	4.51	5.00	9.12	8.00	8.00	
	Bishenpore	0.26	.....	0.11	0.11	0.07	0.04	5	1.39	5.29	6.00	11.87	7.00	7.00	
	Mallara	0.00	.....	0.72	.....	.....	0.03	3	1.38	6.08	5.80	8.48	7.00	7.00	
	Khatra	0.20	.....	0.20	.....	.....	0.12	3	1.13	2.41	7.51	5.03	9.00	9.00	
	Inda	0.01	.....	0.02	0.10	.....	0.10	0.08	5	1.47	5.77	.....	6.80	.....
	Kotalpore	.....	0.11	1.02	0.09	.....	0.76	0.51	5	2.79	5.57	.....	10.44	.....
	Anda	.....	.....	.....	0.50	.....	0.50	0.48	3	1.48	8.61	.....	6.94	.....
Bardhaman	Gangajalhati	0.17	.....	0.61	0.25	.....	0.21	0.29	4	0.94	10.07	.....	13.58	.....
	Raipur	0.10	.....	.....	0.05	.....	0.21	0.29	4	0.94	2.55	.....	8.08	.....
	Sonamukhi	0.40	.....	0.09	0.05	.....	0.90	0.78	5	2.15	5.17	.....	5.63	.....
	Bardhaman	0.03	.....	.....	.....	.....	1.18	2	1.21	4.40	5.96	5.55	8.10	8.10	
	Hetampore	.....	.....	.....	.....	.....	1.25	2	1.40	6.32	6.83	7.25	8.00	8.00	
Nudda	Rampore Har	.....	.....	.....	.....	.....	1.20	2	1.70	6.30	6.53	8.70	8.00	8.00	
	Bolpore	0.04	.....	.....	.....	.....	0.48	2	0.32	5.52	.....	5.28	.....	.....
	Murari	.....	.....	.....	.....	.....	1.17	2	1.20	4.40	.....	6.25	.....	.....
	Ranaghat	0.09	.....	0.21	.....	0.13	0.03	4	0.33	6.38	0.98	8.79	8.00	8.00	
	Kishnaghat	0.41	.....	0.06	.....	0.34	0.00	4	0.37	2.80	5.00	7.97	11.40	11.40	
SOUTH-EAST BENGAL.	Khosina	Choodanga	0.34	.....	0.25	.....	0.25	0.19	4	1.05	4.40	0.00	7.97	10.27	10.27
		Meherpore	2.35	.....	0.48	.....	0.05	0.05	3	2.80	6.78	0.00	8.00	10.27	10.27
		Kooshia	0.73	.....	.....	0.13	0.29	0.33	4	1.00	6.04	7.05	12.04	11.50	11.50
		Satkhira	0.08	0.01	.....	0.18	0.10	0.00	5	0.50	4.50	8.09	12.30	11.50	11.50
		Bagirhat	0.12	.....	.....	0.15	0.20	0.05	4	1.75	4.67	9.12	10.22	11.50	11.50
	Jessore	Khocina	.....	1.15	.....	0.17	0.20	0.21	0.28	6	2.44	6.60	.....	11.50	11.50
		Nakipore	0.35	.....	.....	0.17	0.20	0.21	0.28	6	2.44	6.60	.....	11.50	11.50
		Rampal	0.31	.....	.....	.....	0.22	0.12	4	1.54	5.22	.....	10.73	.....	.....
		Naili	.....	.....	0.04	0.06	0.13	0.21	0.21	4	0.48	5.85	8.16	10.67	11.00
		Jessore	0.90	.....	0.04	0.19	0.00	0.30	0.06	4	1.20	3.00	9.34	5.93	12.33
	Moorshedabad	Jhenidah	.....	0.21	.....	0.78	0.18	0.20	0.12	5	1.65	4.40	9.55	6.52	12.31
		Magoorah	0.80	.....	0.20	.....	0.27	0.15	4	2.12	6.00	8.19	11.84	10.12	10.12
		Bongong	0.05	0.20	0.25	.....	0.10	0.45	.....	5	1.98	4.04	7.18	8.64	8.64
		Kandi	1.25	.....	.....	.....	.....	0.00	2	2.55	5.02	.....	6.74	8.80	8.80
		Berhampore	1.34	.....	.....	0.08	.....	0.24	3	1.60	2.67	6.21	5.18	8.30	8.30
SOUTH-EAST BENGAL.	Chittagong	Lalbagh	1.25	.....	.....	.....	.....	0.60	2	2.15	4.75	.....	6.42	8.34	8.34
		Azimungo	1.90	.....	.....	0.32	.....	.....	.....	.....	.....	.....	5.84	6.15	6.15
		Jungipore	0.05	.....	.....	0.75	.....	0.42	3	1.22	4.01	5.14	5.44	8.05	8.05
		Lalgola	0.45	.....	.....	.....	.....	0.35	2	1.00	5.39	6.52	11.72	10.00	10.00
		Jagunje	1.12	.....	.....	0.14	.....	0.44	3	2.70	5.12	.....	9.22	.....	.....
	Chittagong III Tracts	Abhigunji	0.50	.....	.....	.....	.....	0.11	2	0.61	5.73	.....	9.68	.....	.....
		Pathari	.....	.....	.....	.....	0.60	.....	1	0.60	5.10	.....	9.60	.....	.....
		Cox's Bazar	2.25	0.37	0.04	0.11	.....	0.71	0.07	6	3.85	0.00	22.32	16.20	27.80
		Chittagong	0.04	.....	.....	0.48	.....	.....	0.12	3	0.64	3.19	10.61	4.97	21.68
		Karnadia	0.03	0.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Backergunge	Satkhira	0.40	0.25	0.14	.....	.....	0.10	.....	.....	.....	.....	.....	.....	.....
		Ranginadi	0.27	0.35	1.10	.....	.....	0.24	0.00	5	2.32	4.06	13.24	10.12	18.05
		Kuma	0.44	0.14	.....	.....	.....	.....	.....	.....	.....	13.20	.....	17.84	17.84
		Patuakhali	0.23	1.05	0.37	0.15	0.10	0.35	0.00	7	3.40	5.00	15.00	11.14	20.00
		Persepore	0.23	0.00	0.00	0.05	0.10	0.18	0.22	8	2.06	5.30	9.87	11.00	13.23

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 20th of June 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1890.	Average rainfall from 15th May to date.		
			Saturday, 14th June.	Sunday, 15th June.	Monday, 16th June.	Tuesday, 17th June.	Wednesday, 18th June.	Thursday, 19th June.	Friday, 20th June.	Number of rainy days.	Rainfall week.						
EAST BENGAL—contd.		Gournaddi			0.75												
		Bauphai	0.72	0.05				1.00	0.64	4	2.41	3.90	?	10.72	?	?	
	Noakholly	Noakholly		1.27	0.47	0.25	0.22	0.18	0.67	6	3.06	6.49	16.54	13.80	21.22		
		Penny	1.35	1.75	1.50	0.37				4	5.17	8.88	21.03	17.50	23.85	?	
		Harishpore	1.30	1.00													
		Kamganj	0.20	0.22				0.35	0.10	4	0.87	7.13	?	14.21	?	?	
	Furzedpore	Madaripore						0.50	0.18	2	0.68	1.22	0.00	6.00	13.00	?	
		Furzedpore				0.35	0.22	0.10		3	0.94	3.69	8.95	7.90	13.70	?	
		Gosimunda					0.11	0.21	0.08	3	0.40	0.69	0.00	0.77	14.77	?	
	Dacca	Munshikunge		0.77			0.26		0.24	0.70	4	1.97	4.39	11.00	14.83	15.31	
		Dacca	0.02	0.17		0.25	0.42	0.08	0.45	6	1.30	5.16	9.14	13.54	13.37	?	
		Narainkunge	0.07			1.54		0.12	0.35	4	2.08	5.25	8.00	15.22	12.63	?	
		Manickkunge			0.10	0.10	0.15	0.05	0.09	5	1.69	7.27	0.28	13.11	10.89	?	
		Joydepore	1.15	0.02	0.33	0.04	0.03	0.13	0.10	7	1.82	8.31	?	17.44	?	?	
	Hill Tipperah	Agartola	0.00	2.35	0.05			0.05		5	5.15	9.24	10.50	16.32	14.05	?	
	Tipperah	Comilla	0.10	2.84	0.24	0.48				4	3.64	0.85	13.50	13.02	18.01	?	
		Chandpore		2.00				1.56		3	3.56	8.85	11.67	14.35	14.09	?	
		Brahmunberia	0.05	2.01	0.20			0.10	0.03	6	3.07	8.80	11.55	13.09	16.41	?	
		Ramchandrapore		0.73	1.73	0.21	0.00	0.05	0.05	6	2.87	5.05	?	10.52	?	?	
		Nasirnagar	0.58	0.00	0.30		0.35	0.50	0.30	6	3.13	0.53	?	15.67	?	?	
		Daudkandi		0.81					1.63		3	1.84	4.80	?	7.80	?	?
		Kasba	1.50	0.25				1.18		3	2.94	11.05	?	15.05	?	?	
		Laksham			0.72					2	1.38	0.73	?	12.70	?	?	
	Mymensingh	Kishoreganj	4.55							2	5.27	13.31	14.57	21.14	10.40	?	
		Atia (Tangail)	0.23						1.12	2	1.35	5.31	9.25	17.00	12.85	?	
		Mymensingh	0.28	0.40	0.00	0.15	0.10		0.26	6	1.34	10.50	13.51	17.43	19.44	?	
		Jamalspore			1.87	0.05	0.02		0.75	4	3.00	0.83	10.28	15.44	14.50	?	
		Netrokona	4.00	0.20	0.50	1.50	0.04	0.10	0.20	7	7.31	16.83	13.85	23.00	20.00	?	
		Subornakholi							0.05	2	0.06	2.74	?	9.20	?	?	
		Durgapore	1.00						1.27				?	?	?	?	
		Sherepore Town			2.50	0.35	0.34	0.40	0.53	5	4.14	11.42	?	17.04	?	?	
	Dechangany		0.80				0.00	0.20	4	2.00	7.60	?	16.83	?	?		
NORTH BENGAL.	Pabna	Pabna	0.35				0.24	0.13	3	0.82	7.01	7.73	11.42	11.30	?		
	Sherangunge	0.53						0.26	2	1.07	3.53	7.80	12.34	11.74	?		
	Bogra	Sherepore						0.20	1	0.20	4.88	7.48	8.67	12.50	?		
		Nowkilla						1.25	1	1.25	6.21	8.04	12.10	12.70	?		
		Bogra	0.07					0.43	2	0.50	5.40	9.85	9.53	14.71	?		
		Panchibibi	2.30			0.40	0.35		4	3.95	13.70	7.31	17.46	11.02	?		
	Rajshahi	Benaulah	0.08					0.13	2	0.51	5.78	6.45	9.28	9.57	?		
		Natore	0.83			0.10	0.05	0.07	4	1.05	7.39	6.20	14.10	10.16	?		
		Naogaon	0.87				0.33	0.05	0.11	4	1.26	6.06	7.00	10.40	11.44	?	
		Lalpara						1.45	0.24	2	1.69	4.81	?	7.81	?	?	
		Mando						0.50	0.11	2	0.64	2.84	?	4.78	?	?	
	Maldah	Maldah				0.00	0.08	0.11	0.30	4	1.15	6.77	6.50	10.62	8.30	?	
		Chanchal				0.05	0.21		0.81	3	1.07	5.73	6.27	7.33	8.42	?	
		Gajol				1.85			0.00	2	2.75	0.20	?	11.25	?	?	
		Sibganj				0.40		0.01	1.43	3	2.44	8.04	?	13.75	?	?	
	Dinapore	Mohadelpore						0.30	0.47	2	0.77	5.11	8.40	8.13	12.25	?	
		Churamon					0.19		1.98	2	2.13	16.30	7.02	12.70	10.12	?	
		Raigunge						0.55	1.12	2	1.67	9.03	8.10	12.07	11.60	?	
		Dinapore					0.43		0.00	2	1.42	13.83	10.30	10.13	15.00	?	
		Balorahat	0.78			0.16	0.26	0.11	0.55	5	2.26	10.00	6.55	14.53	12.03	?	
		Thakoorgaon		0.43		0.24	1.50	0.20	1.16	5	3.80	16.05	?	18.01	?	?	
	Rangpore	Bhawaniganj (Gyabandha)	1.15		0.05	0.20				4	3.08	15.14	11.32	10.71	16.77	?	
		Rangpore	0.30	0.03		0.28	0.21		0.82	5	1.64	16.81	12.42	10.77	10.57	?	
		Kurigram				0.04			0.32	2	0.36	22.08	15.79	26.27	24.50	?	
		Bagdogra	0.10		0.50	0.10	1.20	3.27	0.33	6	5.50	24.08	35.30	30.22	24.10	?	
		(Nilphamari)														?	
		Uttara			1.16				0.66	2	1.72	16.03	?	23.37	?	?	
	Jalpigore	Jalpigore	0.04	1.06		0.45	0.47	5.40	0.56	6	8.06	32.08	15.32	35.43	26.25	?	
		Atipora Dooar	2.20	2.57		0.14	0.54	0.67	1.08	6	7.55	40.34	?	43.92	?	?	
		Fallacotta	0.10	5.25		0.35	0.34	2.65	0.60	6	6.00	36.32	?	33.43	?	?	
		Debiganj		0.50			0.24	0.77	1.12	4	2.04	23.16	?	30.17	?	?	
	Bhagatpore (Nagarkatta)	2.02	0.63		1.27	0.27	0.60	0.43	6	5.44	10.20	?	26.02	?	?		
Cooch Behar.	Dinhat				0.12	0.00	0.00	0.11	4	1.27	33.41	18.70	36.22	38.40	?		
	Cooch Behar	0.04	0.07		2.36	2.07	0.10		4	5.00	38.32	24.02	43.04	33.02	?		
	Mickiganze	0.17		0.27	1.38	2.40	0.28	0.04	6	4.56	33.98	18.20	37.30	27.35	?		
	Mamabanga	0.12	1.32	0.47	3.24	0.24	0.18	0.05	7	6.82	30.50	27.37	36.30	42.05	?		
	Buxa	1.12	0.25	0.89	0.00	2.62	0.22	0.30	7	5.71	22.51	45.77	25.82	23.86	?		
	Siliguri	0.03	0.25								14.40			15.87	?		
	Darjeeling	0.30	0.00		0.20	0.26	0.04	1.84	6	2.76	7.92	10.30	9.00	13.15	?		
	Kalinpong	2.00	0.17	0.02	0.36	0.00	0.40	4.14	7	7.60	16.53	?	23.73	?	?		
	Kurseong														?		
NORTH BENGAL.	Purneah	Kisimganj		0.47		0.25	0.55	1.35	0.63	5	3.25	15.79	9.45	14.73	13.55	?	
		Arrah					0.23	0.07	1.53	3	2.13	8.43	7.28	11.56	10.80	?	
		Purneah					1.30	1.74	1.85	3	4.89	13.73	7.47	16.67	11.50	?	
		Gondwara							0.80	1	0.80	2.00	?	2.00	?	?	
		Balarampore				1.10	0.05	0.02							?	?	
		Mariari		0.50			0.40	0.00	3	1.50	4.30	?	8.65	?	?	?	
		Kaliaganj		1.05			0.86	0.85	0.18	4	3.84	16.74	?	18.74	?	?	
		Maddapore					1.75	1.50		2	3.25	7.98	5.53	10.78	7.90	?	
		Scoopool						0.10	1.00	2	1.10	3.38	6.35	4.70	8.50	?	
		Protobaganj		0.14		0.65									?	?	
																?	
																?	
																?	
																?	
	Durbhanga	Tajpore						0.04		2	1.06	1.90	4.25	2.04	5.26	?	
	Durbhanga	1.03					0.11		2	1.05	5.37	6.64	6.70	5.94	?		
	Madhubani						0.75		2	0.89	4.37	5.11	0.03	6.78	?		
	Isahero	0.31							2	3.21	4.24	?	0.44	?	?		
	Koshera						1.20	0.90	2	2.40	3.30	?	3.30	?	?		
Mozafferpore	Sitamarhi	0.02						0.35	3	0.89	3.42	5.32	5.21	6.72	?		
	Mozafferpore				0.24			0.52	2	1.00	3.27	4.38	4.15	6.82	?		
	Haipore				0.03			0.42	2	0.45	1.17	3.68	3.83	4.50	?		
	Papa	0.60						0.70	2	1.50	2.52	?	3.1				

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 20th of June 1890—continued.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1890.	Average rainfall from 15th May to date.	
			Saturday, 14th June.	Sunday, 15th June.	Monday, 16th June.	Tuesday, 17th June.	Wednesday, 18th June.	Thursday, 19th June.	Friday, 20th June.	Number of rainy days.	of Rainfall week.					
NORTH BHAR —concluded.	Chumpran...	Motihari	0.57	0.91	0.33	.....	.....	0.22	4	2.03	5.42	5.42	10.78	5.32
		Bottiah	0.29	1.08	.....	.....	.....	0.81	4	3.01	5.64	5.64	6.57	5.52
		Bogaha	.....	0.07	1.08	.....	1.08	1.02	5	5.40	8.31	8.31	8.02	8.02
		Burhawa	0.32	0.03	1.70	.....	.....	0.05	5	2.80	4.21	4.21	5.73	5.73
SOUTH BHAR	Sarun	Gopalgunge	.....	0.25	.....	0.15	0.60	0.25	4	1.25	2.00	2.00	3.50	3.50
		Sewan	.....	.....	.....	0.64	3.13	0.33	3	4.10	5.24	5.24	6.75	6.75
	Shahabad	Chuprah	.....	.....	.....	.....	.....	0.10	2	0.74	2.23	2.23	4.22	4.22
		Buxar	0.09	.....	.....	.....	.....	0.45	3	1.30	1.81	1.81	3.05	3.05
		Dehree	.....	.....	.....	.....	0.76	1.34	2	2.10	2.89	2.89	3.10	3.10
		Bhaboah	.....	.....	.....	0.08	0.35	0.35	3	4.33	4.68	4.68	4.68	4.68
		Sasaram	.....	.....	.....	.....	.....	3.62	1	3.62	4.08	4.08	4.07	4.07
		Arrah	.....	.....	.....	.....	.....	0.12	1	0.12	0.45	0.45	1.80	3.83
		Mohania	.....	.....	.....	.....	.....	2.10	1	2.10	3.60	3.60	5.90	5.90
	Gya	Aurangabad	.....	.....	0.17	.....	.....	1.08	2	1.25	1.69	1.69	2.78	4.08
		Gya	.....	.....	.....	.....	.....	0.82	1	0.82	1.81	1.81	3.36	4.77
		Nowadah	.....	.....	.....	.....	0.93	0.93	2	1.50	3.74	3.74	4.77	4.77
Jehanabad		.....	.....	0.17	.....	.....	0.85	1	0.85	1.26	1.26	3.52	4.16	
Arwal		.....	.....	.....	.....	.....	1.50	1	1.50	2.14	2.14	3.03	3.03	
Daudnagar		.....	.....	.....	.....	.....	0.50	1	0.50	1.35	1.35	1.02	1.02	
Sherrghati		.....	.....	.....	.....	.....	1.62	1	1.62	2.12	2.12	2.12	2.12	
CENTRAL NAGPUR.	Patna	Hajoul	.....	.....	.....	.....	.....	1.20	1	1.20	1.69	1.69	1.69	1.69
		Fakir Barwan	.....	.....	.....	.....	.....	2.65	1	2.65	3.33	3.33	5.08	5.08
		Monghyr	Patna	0.12	0.45	2	0.57	1.10	1.10	3.50	4.91	
			Dumrao	1.46	2	1.08	2.43	2.43	3.48	4.94	
			Barh	0.32	0.80	2	0.80	1.75	1.75	2.08	4.12	
			Bikram	0.70	0.35	2	1.05	1.85	1.85	2.63	2.63	
			Hilsa	1.40	1	1.40	1.40	1.40	3.63	3.63	
	South Bhagulpore.	Begooeral	.....	.....	.....	.....	.....	0.72	1	0.72	2.20	2.20	3.97	5.44
		Monghyr	.....	.....	.....	.....	.....	1.93	1	1.93	3.59	3.59	6.10	6.10
		Jamui	.....	.....	.....	.....	.....	4.52	1	4.52	6.91	6.91	8.11	8.11
		Gogri	.....	.....	.....	.....	.....	0.78	2	4.54	4.54	4.54	6.48	6.48
		Shakhpura	.....	.....	.....	.....	.....	3.13	1	3.13	3.93	3.93	4.23	4.23
Bhagulpore		.....	.....	.....	0.15	.....	0.30	3	2.28	3.53	3.53	5.91	6.06	
Banka		.....	.....	.....	.....	.....	1.42	1	1.42	2.47	2.47	3.80	3.80	
CENTRAL NAGPUR.	Sonthal Pergunnahs.	Krig-ni	.....	.....	.....	.....	.....	0.72	2	1.80	3.78	3.78	5.19	5.19
		Bangaon	.....	.....	.....	.....	.....	Nil	Nil	Nil	3.53	3.53	4.08	4.08
		Rajmehal	.....	.....	.....	.....	.....	0.00	2	1.05	7.02	7.02	9.12	9.12
		Godda	.....	.....	.....	.....	.....	0.00	1	0.00	3.67	3.67	6.82	6.82
		Pakour	.....	.....	.....	.....	.....	0.01	4	3.23	8.19	8.19	11.42	11.42
		Nya Doonka	0.01	.....	.....	.....	.....	1.11	2	1.12	5.05	5.05	6.09	6.09
		Doonhar	.....	.....	.....	.....	.....	0.89	1	0.89	1.38	1.38	5.29	5.29
	Hasaribagh	Jamtara	.....	.....	.....	.....	.....	0.43	1	0.43	1.35	1.35	3.24	3.24
		Mohagoma	.....	.....	.....	.....	.....	2.13	1	4.00	4.22	4.22	5.29	5.29
		Namhat	.....	.....	.....	.....	.....	1.00	1	1.05	2.23	2.23	2.82	2.82
		Pachamba (Girdi)	0.28	2.45	2	2.73	4.57	4.57	5.95	5.95	
		Hasaribagh	0.08	.....	.....	.....	.....	0.02	3	0.61	2.19	2.19	4.14	4.14
Semlagurah		0.25	.....	.....	.....	.....	0.76	2	1.01	1.54	1.54	2.00	2.00	
Mahud Hills		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CENTRAL NAGPUR.	Lohardugga	Jhoomra Hills	0.60	.....	.....	.....	.....	0.00	3	2.60	3.80	3.80	5.80	5.80
		Barh	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Chutra	0.35	1.00	2	1.35	2.47	2.47	3.29	3.29	
		Karagdeha	.....	.....	.....	.....	.....	0.04	2	2.24	2.43	2.43	4.43	4.43
		Kamphar	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Lohardugga	1.21	0.21	1.48	3	1.93	3.53	3.53	5.90	5.90	
		Ranchi	0.29	0.18	0.80	1	0.80	3.31	3.31	3.79	3.79	
	Singbhoom	Palasow	1.00	0.90	2	1.90	3.60	3.60	6.20	6.20	
		Silli	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Batumai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Jossinabad	0.70	1.19	2	1.98	2.53	2.53	2.53	2.53	
		Gerdia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CENTRAL NAGPUR.	Singbhoom	Chyobassa	0.05	.....	.....	.....	.....	0.55	0.55	3	1.18	2.05	5.15	6.04
		Chakradar-pore.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Ghatilla	.....	0.13	.....	.....	0.05	0.13	1.00	4	1.90	6.23	7.02	7.02
	Manbhoom	Bakaragura	0.05	.....	.....	.....	.....	1.01	0.36	3	2.02	6.23	7.02	7.02
		Parulla	1.18	.....	.....	.....	.....	0.04	0.98	2	2.18	5.00	6.22	6.22
		Gobindpore	0.14	.....	.....	.....	.....	0.05	0.47	3	0.66	0.77	1.54	1.54
	CENTRAL NAGPUR.	Singbhoom	Nagbunata-pore.	0.60	0.71	2	0.77	1.21	3.30	3.30	
			Barabhoom	0.35	0.25	0.62	3	1.22	2.96	7.21	7.21	
			Jhaida	2.41	0.37	2	2.81	4.10	5.76	5.76	
		CENTRAL NAGPUR.	CENTRAL NAGPUR.	Chas	1.14	1	1.14	2.03	2.03	3.91	3.91
				
				

Explanation.—..... indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 24th June 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVA-
TIONS TAKEN IN ASSAM, FOR THE WEEK ENDING FRIDAY, THE
20TH OF JUNE 1890.**

TOWARDS the end of last week rain was falling in fair amounts in Orissa and Behar and heavily in North Bengal, while over the strip of country, including East and South-West Bengal and Chutia Nagpur, cloudy weather prevailed; but rainfall was considerably below the normal. At the commencement of the present week pressure was above the normal in all districts by uniform amounts, very little under a tenth of an inch, and as a steady—though at times a slow—fall has been going on in the lower districts during the greater part of the week, while small irregular changes have been taking place in the northern districts, the marked change in the rainfall distribution may be due to the relatively low pressure in Orissa and South-West Bengal. The rainfall in the north and east of the province has been scattered and largely below the normal, while in Orissa and the adjacent parts of the neighbouring districts falls have been almost general and considerably above the average. Cloudy weather has prevailed with, for short intervals, low temperature, especially over the western half of the province, and the wind circulation, except when a shallow depression formed near the Orissa coast at the end of the week, has been normal.

During the first four days of the week, pressure changes were slight and irregular, excess remaining between a twentieth and a tenth of an inch, with the isobars running almost north and south; but about the middle of the week a brisk fall set in in Orissa and the north-west corner of the Bay, the low pressure area becoming distinct on Wednesday, the 18th. A narrow trough of low pressure then ran from the head of the Bay in the usual north-westerly direction, and the intensification of the depression at the lower end on Thursday was accompanied by a slight deepening along the length of the trough. Pressure was considerably below the normal on the 19th, and gradients very steep to the south-east of it, but winds, though cyclonic, were everywhere light. Temperature was lower, and general rain fell in Orissa and South-West Bengal, but was not so general in the east and north. The depression after remaining two days close to the Orissa coast moved over Chutia Nagpur, when rain fell at all the western stations, fairly heavy amounts being reported by many stations. It appears to have filled up on Friday, as little or no trace of its existence remained after the very rapid rise which was general in the south-western districts. The influence of the depression was not wide, as the weather conditions in East Bengal, North Bengal, and a considerable portion of South-West Bengal have scarcely been affected, rainfall being light and scattered and temperature above the normal in these parts throughout the week.

Pressure.—Has been on an average above the normal in all districts except Orissa and Chutia Nagpur, defect being very slight in the latter, and under a twentieth of an inch in the former. Pressure changes were of no importance till Wednesday, the 18th, when a brisk fall of about .08 inch set in at the Orissa stations, continuing on Thursday, when defect amounted to .2 inch at False Point and about .15 inch at the other stations. On Friday the depression was over Chutia Nagpur, and was rather more shallow and defused, defect being over .15 inch only at Ranchee, but exceeding .1 inch in Ganjam, Orissa, Chutia Nagpur and South-West Bengal. Gradients were very steep to the south-east of the depression, the difference between False Point and Tavoy at one time being very nearly half an inch. Pressure was then lowest at False Point and was very slightly above 29.4 inches.

Temperature.—Changes have been irregular and seldom of any importance. There was considerable defect in the western districts in the early part of the week, and again at the end when general rain fell during the existence of the depression. In the north and east it has generally been above the normal, and changes usually small. The means in Behar, North and East Bengal are all above the normal, excess being 1.3° in South Behar, 1.1° in North Bengal, .8° in North Behar, and .3° in East Bengal. Defect in Chutia Nagpur is 1.7°, and in Orissa 1.5°, while in South-West Bengal and Assam it is about half a degree.

Rainfall.—Has been above the normal in Orissa only, the average fall being 3.6 inches, or 1.14 inches in excess. In all the other districts defect is large, 2 inches in East Bengal, 1.9 inches in North Bengal, 1 inch in Chutia Nagpur and North Behar, .8 inch in South-West Bengal, and .6 inch in Chutia Nagpur. The only districts where general rain has fallen during the greater part of the week are Orissa, Midnapore, 24-Pergunnahs, Howrah, part of Mymensingh, Julpigoree, Cooch Behar, and the Darjeeling Hills. In these last three, however, the falls have not been nearly so heavy as during the previous two weeks. The days when rain was most general in all districts were, Saturday, Thursday, and Friday. Very scattered falls were received in South Behar, except on Friday, and in Chutia Nagpur, except on Saturday and Friday. The heaviest fall in North Bengal was 10.6 inches at Mickilgunge, and generally in Julpigoree, Cooch Behar, and the Darjeeling Hills amounts were between 5 and 10 inches, and in the other districts nearly always between 1 and 2 inches. The heaviest falls in Orissa and South-West Bengal were 7 inches at Pooree, Tumlock, and Mohesreka (Oolooberiah), 5 inches at Dum-Dum, and 4.6 inches at False Point. In East Bengal amounts were rather variable, ranging between 1 inch and 5 inches. In Behar falls were at several stations over 4 inches, but generally between 1 and 2 inches, while in Chutia Nagpur they were under 1 inch at nearly all stations.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 20th of June 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.				Average mean of week above or below normal mean of week.	Of week.		Rainy days.		Since 1st of month.		Since 15th May 1890.		
			Of highest of each day.	Of lowest of each day.	Of mean for each day.	Average.		Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.		
Orissa	100.0	75.7	90.0	79.4	84.7	-1.5	3.00	2.46	+1.14	5.0	3.3	+1.8	6.30	4.77	9.49	6.94
South-West Bengal ...	95.3	76.2	81.9	79.1	83.5	-0.6	2.01	2.53	-0.84	4.1	3.9	+0.2	5.10	3.70	9.50	
East Bengal	92.1	75.0	88.0	77.8	82.9	+0.3	2.89	4.80	-2.00	4.7	4.8	-0.1	7.08	12.40	13.65	10.92
North Bengal	94.0	74.1	80.1	78.5	84.3	+1.1	2.40	4.38	-1.89	3.4	4.2	-0.8	15.15	10.96	19.1	16.41
North Bihar	99.3	71.8	94.0	79.1	86.6	+0.8	2.02	2.98	-0.96	3.0	3.0	0	5.50	3.03	7.53	
South Bihar	103.5	79.0	98.4	81.2	89.8	+1.3	1.61	2.21	-0.60	1.7	2.8	-1.1	3.66	3.53	4.60	5.13
Chutia Nagpur	94.5	71.9	80.6	74.0	81.5	-1.7	1.56	2.62	-1.06	2.5	3.7	-1.2	2.63	4.47	5.86	6.10
Assam	91.5	73.8	87.8	76.8	82.2	-0.3										

* Chyebass not included.

METEOROLOGICAL OFFICE, BENGAL;
The 24th June 1890.

C. LITTLE,
Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 15th to 21st June 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour pressure at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
June 1890...	15th ...	29.530	85.8	94.0	16.4	77.6	86.6	81.5	1.009	79.5	80	0.05
" "	16th ...	585	85.3	91.5	12.5	79.0	85.6	81.5	1.022	79.9	84	0.91
" "	17th ...	593	87.0	94.0	14.0	80.0	85.6	81.5	1.022	79.9	84	0.23
" "	18th ...	516	85.5	92.0	13.0	79.0	87.4	81.0	.972	78.4	76	0.12
" "	19th ...	471	84.9	91.0	12.2	78.8	88.4	82.4	1.013	79.6	76	0.02
" "	20th ...	497	83.2	87.5	8.7	78.8	86.6	82.5	1.057	80.9	84	0.55
" "	21st ...	549	83.9	89.0	10.2	75.8	87.1	81.5	1.002	79.3	78	1.22

The mean 10 A.M. pressure of the seven days Inches.
29.549

The mean temperature of the seven days 85.1

The extreme variation of temperature 16.4

The maximum temperature 94.0

The mean 10 A.M. relative humidity of the seven days 80

The total fall of rain from 15th to 21st June 1890 Inches.
3.10

The daily mean temperatures are the crude means of maximum and minimum temperatures.

J. H. GILLILAND,
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;
The 23rd June 1890.

Results of the Meteorological Observations taken at the Alipore Observatory from
15th to 21st June 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour pressure.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
June	15th	152.6	4.6	29.556	83.7	91.6	15.4	76.2	80.2	0.956	78.8	85	SE by S and variable	71	0.33	Partially cloudy, d, t, p.
"	16th	155.6	5.7	29.58	85.1	89.5	10.7	78.8	80.8	0.96	79.1	83	SS, E and S by E ...	103	0.05	Partially cloudy, d, t.
"	17th	148.8	2.6	29.545	83.9	87.7	9.0	78.7	80.8	1.008	79.5	87	SE by S, SSW and ESE	83	0.26	Chiefly cloudy, d, t, p.
"	18th	149.8	3.4	29.496	84.3	90.3	11.6	78.7	80.9	1.011	79.6	86	ESE and E by S ...	153	0.19	Chiefly cloudy, o, d, p, t.
"	19th	150.5	3.3	29.445	84.2	88.5	10.3	78.2	80.6	0.996	79.1	85	SE and E ...	213	0.02	Chiefly cloudy, o, g, d.
"	20th	134.5	0.9	29.496	81.5	86.1	8.7	77.4	79.0	0.959	78.0	89	SE by E, calm and variable.	91	1.50	Chiefly cloudy, o, g, p, d, t.
"	21st	149.9	1.1	29.532	81.8	87.2	8.7	78.5	78.9	0.960	77.7	87	ESE, WSW and variable.	102	0.32	Chiefly cloudy, o, g, d, p, t, <.

The mean pressure of the seven days ... 29.515
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 29.527

The total number of hours of bright sunshine ... 21.6
The maximum possible number of hours of sunshine ... 94.3

The mean temperature of the seven days ... 83.5
The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 84.1
The extreme variation of temperature ... 15.4
The maximum temperature ... 91.6

The highest velocity of the wind in one hour ... 15

The highest pressure of wind on one square foot ... Approximately 3

The mean relative humidity ... 86
The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 84

The total fall of rain from 15th to 21st June 1890 ... 2.67
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 3.17
The total fall from 1st January to 21st June 1890 ... 14.44
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 17.98

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h., 10h., 16h., and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

t thunder, o overcast, g gloomy, d drizzling rain, p passing temporary showers, < lightning.

J. H. GILLILAND,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;

Calcutta, the 23rd June 1890.

MEMORANDUM.

Weekly review of births and deaths in twenty-seven of the principal towns of Bengal for the week ending with Saturday, the 7th June 1890.

BIRTHS.

THE births registered during the week ending with Saturday, the 7th June 1890, in twenty-seven principal towns of Bengal correspond to an annual rate of 13.9 per 1,000 of the aggregate population of those towns, which is 1,061,574. This rate is 4 lower than the average rate of the corresponding week of the past five years, and is also lower than the rate of the corresponding week of any of the past five years, with which comparison is instituted, *vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years 1885-89.	1890.
Ratio of births per 1,000 of the population per annum	20.6	15.2	15.1	19.0	19.8	17.9	13.9

The births registered in each of the last four weeks in each of the twenty-seven principal towns correspond to the following rates per 1,000 of the population:—

Towns.	WEEKS ENDING—				Towns.	WEEKS ENDING—			
	17th May 1890.	24th May 1890.	31st May 1890.	7th June 1890.		17th May 1890.	24th May 1890.	31st May 1890.	7th June 1890.
Burdwan	18.3	16.3	9.1	21.4	Narainganj	20.7	20.7	16.6	24.8
Midnapore	23.2	15.3	18.6	18.6	Chittagong	21.1	7.0	16.4	11.7
Hughli and Chinsurah	24.6	21.3	27.7	26.3	Comillah	19.3	11.6	23.1	15.4
Serampore	17.7	21.6	21.6	23.6	Patna City	7.1	9.4	3.6	6.2
Utterpara	24.3	9.4	18.9	...	Gya	21.2	24.6	10.1	19.8
Howrah	15.5	15.2	14.3	18.9	Arrah	10.1	9.6	27.5	13.2
Bali	10.5	14.0	14.0	7.0	Mozufferpore	14.6	9.7	15.8	10.9
Kishnagar	11.4	3.8	7.6	15.1	Durhanga	23.6	24.4	18.1	11.0
Ranaghat	22.9	24.0	6.0	6.0	Chupra	15.1	10.1	11.1	9.1
Santipore	12.3	17.5	14.0	10.5	Bhagalpore	12.7	13.6	23.5	10.9
Jessore	...	15.4	6.1	...	Monghyr	23.5	17.3	19.0	17.3
Rampore Beaulah	28.9	23.6	21.0	23.6	Purneah	17.3	20.8	3.5	8.3
Darjiling	14.8	14.8	7.4	22.2	Poori	10.8	8.4	14.7	18.9
Dacca	7.8	11.0	11.0	10.4					

It will be seen that last week the highest birth-rate was returned from Hughli and Chinsurah municipality (26.3) and the lowest from Ranaghat (6.0). No births were registered during the week in Utterpara and Jessore towns.

DEATHS.

THE deaths registered during the week under review correspond to an annual rate of 26.2 per 1,000 of the population. The rate of the week is 4.4 higher than the average rate of the corresponding week of the past five years, and is also higher than the rate of the corresponding week of any of the past five years except 1885, *vide* the figures below:—

	1885.	1886.	1887.	1888.	1889.	Weekly average of five years 1885-89.	1890.
Ratio of deaths per 1,000 of the population per annum	31.4	19.5	17.5	18.6	22.7	21.9	26.2

The deaths registered in each of the last four weeks in each of the twenty-seven towns correspond to the following rates per 1,000 of the population:—

Towns.	WEEKS ENDING—				Towns.	WEEKS ENDING—			
	17th May 1890.	24th May 1890.	31st May 1890.	7th June 1890.		17th May 1890.	24th May 1890.	31st May 1890.	7th June 1890.
Burdwan	27.5	22.9	25.0	16.8	Narainganj	12.4	41.4	8.3	24.8
Midnapore	23.2	17.0	29.4	20.1	Chittagong	21.1	7.0	11.7	39.5
Hughli and Chinsurah	47.6	27.9	27.9	32.8	Comillah	15.4	11.6	30.8	30.8
Serampore	21.6	27.6	29.4	15.7	Patna City	17.8	21.1	19.6	2.4
Utterpara	28.3	28.3	9.4	47.2	Gya	25.3	27.5	32.1	42.4
Howrah	15.6	16.6	15.2	12.6	Arrah	26.3	13.3	22.1	21.5
Bali	28.1	7.0	21.1	10.5	Mozufferpore	17.0	23.1	24.9	20.8
Kishnagar	9.5	13.2	11.4	9.5	Durhanga	35.4	37.7	34.0	19.7
Ranaghat	18.0	18.0	12.0	12.0	Chupra	19.1	4.0	15.1	11.4
Santipore	12.3	26.3	6.2	8.8	Bhagalpore	15.6	14.6	24.2	22.6
Jessore	11.3	...	6.1	49.0	Monghyr	19.0	22.5	19.9	26.8
Rampore Beaulah	30.8	23.6	26.3	23.6	Purneah	20.8	17.3	10.4	27.7
Darjiling	51.9	44.5	14.8	29.3	Poori	30.9	35.6	62.0	142.7
Dacca	30.5	25.6	16.2	30.5					

It will be seen that last week the highest mortality occurred in the town of Poori (142.7) and the lowest in Santipore (8.8).

Measured by last week's mortality, the highest annual death-rates from the following registered death-causes were as follow:—

<i>Cholera.</i>		<i>Fever.</i>		<i>Other causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Utterpara	... 37.7	Poori	... 102.8	Poori	... 21.9
Durbhanga	... 11.8	Darjiling	... 44.5	Dacca	... 14.9
Poori	... 10.5	Jessore	... 36.7	Midnapore	... 12.4
Mosufferpore	... 8.5	Comillah	... 30.8	Serampore	... 11.8
Patna City	... 8.4	Gya	... 28.7	Gya	... 11.6
Monghyr	... 8.6	Purneah	... 27.7		
		Hughli and Chinsurah	23.0		

The total mortality from the several registered death-causes in the twenty-seven towns amounted to 3.5 from cholera, against 3.7 per 1,000 in the preceding week; .5 from small-pox, against .9; 13. from fever, against 10.4; 2.3 from bowel-complaints, against 1.5; .5 from injury, against .4; and 6.3 from other causes, against 5.4 in the preceding week.

The mortality of last week according to *Sex*, *Class* and *Age* was as follow:—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	... 25.5	Christians	... 22.4	Under 1 year	... 159.8
Females	... 27.0	Hindus	... 21.9	1 and under 5 years	... 31.1
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population ...	94	Mahomedans	... 22.1	5 " 10 "	... 11.8
				10 " 15 "	... 10.3
				15 " 20 "	... 14.1
				20 " 30 "	... 17.5
				30 " 40 "	... 20.5
				40 " 50 "	... 20.8
				50 " 60 "	... 39.6
				60 years and upwards	... 64.1

W. H. GREGG, *Dip. Publ. Health, Camb.*,

Sanitary Commissioner for Bengal.

The 23rd June 1890.

SUPPLEMENT TO THE CALCUTTA GAZETTE, JUNE 25, 1890.

DISTRICTS, MUNICIPALITIES,		MORTALITY ACCORDING TO—										Age.									
		Class.					Deaths among—					Drains.									
		Ratio per 1,000 of Population per Annum.					Ratio per 1,000 of Population per Annum.					Ratio per 1,000 of Population per Annum.									
		Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and up.
Burdwan	Burdwan	8	176	162	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Midnapore	Midnapore	11	221	164	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Hughli	Hughli and Chinsurah	10	331	84	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Serampore	Serampore	6	134	554	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Howrah	Howrah	17	275	130	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Nuddea	Nuddea	2	78	397	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Jessore	Jessore	5	126	...	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Rajshahye	Rajshahye	5	167	318	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Darjiling	Darjiling	8	906	...	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Dacca	Dacca	20	1065	254	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Chittagong	Chittagong	1	82	422	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Tipperah	Tipperah	2	175	452	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Patna	Patna	29	258	89	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Gya	Gya	46	399	517	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Shahabad	Shahabad	15	252	156	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Mossurpore	Mossurpore	13	260	293	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Durbhanga	Durbhanga	23	347	325	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Saran	Saran	9	118	87	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Bhagalpore	Bhagalpore	18	335	311	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Monohyr	Monohyr	20	302	154	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Purneah	Purneah	4	237	367	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
Poori	Poori	68	1441	...	...	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1
TOTAL	TOTAL	497	279	271	...	...	...	...	...	...	...	75	61	25	10	22	71	69	20	20	20

OFFICE OF THE DISTRICT MAGISTRATE, CALCUTTA.

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 21st June 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 21st JUNE 1890.			WEEK ENDING SATURDAY, THE 22nd JUNE 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	301	63,795	970	195	57,105	1,138
Jute ...	18	9,950	151	13	6,800	116
Firewood ...	111	70,190	1,062	70	35,325	506
Other articles ...	875	2,15,310	3,296	748	2,09,885	3,175
Total ...	1,305	3,59,175	5,478	1,026	3,19,115	4,933

Eastern Bengal State Railway.

Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of March 1890, as compared with the same month of the previous year.

SPECIALS.	1890.		1889.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1890.	1889.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal	12,217	3,596	9,408	4,170	15,613	13,638	1,975	.....
Cotton, raw	139	462	7	396	601	373	228	.....
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles								
b.—In boxes	1,953	39	1,793	142	1,992	1,935	57	.....
2.—Indian—								
a.—In bales and bundles								
b.—In boxes								
Grains—								
1.—Rice	2,240	4,270	2,033	2,707	6,519	4,740	1,779	.....
2.—Others	582	12,221	626	7,844	12,803	8,470	4,333	.....
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed								
b.—Undressed								
2.—Skins of sheep, &c.—								
a.—Dressed								
b.—Undressed								
Jute—								
1.—Raw—								
a.—Screwed		1,608		838	1,608	838	830	.....
b.—Unscrewed		7,842	31	5,179	7,891	5,210	2,681	.....
2.—Gunny-bags and cloth	311	912	290	1,149	1,460	1,439	21	.....
Metals—								
1.—Copper, unwrought								
2.—Brass, unwrought								
3.—Brass and copper, wrought	1,112	87	1,177	140	1,190	1,317	.....	118
4.—Iron								
5.—Tin								
6.—Others								
Oils—								
1.—Kerosine	299	11	312		310	316	.....	6
2.—Others	310	5	149	13	313	182	131	.....
Oil-seeds—								
1.—Linseed								
2.—Rape and mustard								
3.—Til or gingelly								
4.—Niger	156	6,889	84	8,690	7,045	8,174	.....	1,129
5.—Castor								
6.—Poppy								
7.—Others								
Provisions—								
1.—Betelnuts	161	683	171	127	784	298	486	.....
2.—Others	804	441	611	537	945	1,148	.....	203
Railway plant and rolling-stock	2,722	1,027	4,500	3,673	4,640	8,231	.....	3,584
Salt	3,622	5	3,130	25	3,627	3,163	472	.....
Sugar—								
1.—Unbrined								
2.—Unbrined	1,300	1,173	931	2,678	2,625	3,609	.....	984
Tea—								
1.—Foreign								
2.—Indian		32	1	17	37	18	19	.....
Wood—								
1.—Timber	213	110	116	142	329	258	64	.....
2.—Firewood	1,759	741	1,533	986	1,759	1,533	226	.....
Tobacco	40		30		781	966	.....	185
All other articles of merchandise—								
1.—Unmanufactured	3,782	1,401	4,415	2,154	5,183	6,509	.....	1,326
2.—Manufactured								
Hay, straw, and wool (C. & S. E. Section)	509		577		509	577	22	.....
Total	34,135	44,807	32,051	41,433	78,042	73,461	4,581	7,865

Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of March 1890.

INCREASES.

Coal	Tons.
For railway and steamer consumption.	1,975
Rice	1,779
Most of the rice-exporting stations on the Northern Section show increases under this head, said to be due to high rates prevailing in the Calcutta market.	
Jute, unscrewed	2,681
Mymensing and Goalundo show large increases, but the despatches generally from stations were good.	
Betelnuts	486
Principally from the B. C. F. C. via Khoorna.	
Salt	472
The increase from Chitpore during the month amounted to 20,248 maunds	

DECREASES.

Oil-seeds	1,129
Most of the stations on the Eastern Section show a falling off, said to be due to inferior crops.	
Railway plant, &c.	3,584
Due to completion of work on the Behar Section.	
Sugar	984
Principally from Bogoola, Chooadanga, and Alumdanga. The Calcutta firms are not purchasing Bengal-grown sugar.	

• CALCUTTA, the 21st June 1890.

F. P. QUINLAN,
Examiner of Accounts.

EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ended 24th May 1890,
as compared with the same period of 1889.

STAPLES.	1890.		1889.		Increase.		Decrease.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
ANIMALS, LIVING	No. 25	Rs. 295	No. 50	Rs. 754	No. 25	Rs. 459	No. 25	Rs. 459
Horses, ponies, and mules	132	1,333	12	81	120	1,252	1,138	787
Cattle	1,000	1,333	2,697	2,033	1,697	6,666	1,697	6,666
Sheep and goats	137	71	674	421	537	350	537	350
Other kinds	23	4	27	5	4	1	4	1
BORAX	7	39	135	2,285	128	2,246	128	2,246
Canes and reeds	8,27,867	1,96,827	7,67,977	2,28,557	59,890	68,800	59,890	68,800
Casuarina (Indian rubber)	20,40,201	2,75,835	22,20,791	2,96,273	1,80,590	20,440	1,80,590	20,440
Chinese and Japanese ware	86,584	54,948	57,480	31,000	29,104	23,948	29,104	23,948
Coal and coke, up	15,735	9,917	11,441	7,031	4,294	2,886	4,294	2,886
Do, down	1,85,237	1,98,323	1,49,384	1,77,141	35,853	21,182	35,853	21,182
Cotton, raw	135	103	103	65	32	40	32	40
Twist and yarn (European)	7,107	9,917	7,177	7,031	70	1,886	70	1,886
Do, (Indian)	1,85,237	1,98,323	1,49,384	1,77,141	35,853	21,182	35,853	21,182
Piece-goods (European)	135	103	103	65	32	40	32	40
Do, (Indian)	1,85,237	1,98,323	1,49,384	1,77,141	35,853	21,182	35,853	21,182
Drugs and medicines	1,032	1,504	1,117	1,255	85	249	85	249
Intoxicating drugs (other than opium, i.e., arsenic, bang, ganja, and charas, &c.)	784	300	2,024	1,003	1,240	1,343	1,240	1,343
DYEING MATERIALS	402	258	177	202	225	56	21	4
Indigo	1	1	22	5	21	4	21	4
Madder or manih	1,917	945	2,430	1,590	513	645	513	645
Safflower	15,470	12,365	9,601	5,998	5,869	6,367	5,869	6,367
Turneric	10,108	3,719	12,802	7,459	2,694	3,740	2,694	3,740
Other kinds	514	309	423	277	91	132	91	132
Earthenware and porcelain	9,883	1,370	17,941	1,917	8,058	548	8,058	548
Jute, raw	90,783	46,730	1,15,590	62,772	24,807	16,043	24,807	16,043
Do, manufactured (gunny-bags and cloths)	7,824	2,605	6,288	2,231	1,536	374	1,536	374
Other fibres, raw	1,440	500	1,243	396	197	104	197	104
Do, manufactured	3,617	1,878	3,028	1,780	589	83	589	83
FRUITS & NUTS	34,723	20,509	20,009	18,238	14,484	2,271	14,484	2,271
Wheat	7,40,700	1,90,079	13,63,150	3,55,119	6,22,450	1,65,040	6,22,450	1,65,040
Gram and pulses	3,61,005	1,02,768	3,22,535	95,878	38,470	26,890	38,470	26,890
Rice, husked	3,33,842	61,465	5,78,772	1,12,425	2,44,930	40,960	2,44,930	40,960
Do, unhusked	29,497	4,743	51,797	6,548	22,300	2,805	22,300	2,805
Other grain and spring crops	97,803	1,213	1,48,733	3,630	1,40,930	5,091	1,40,930	5,091
Government stores	17,988	27,478	22,089	41,080	4,101	13,602	4,101	13,602
Gums and resins	6,363	3,534	6,843	3,422	480	888	480	888
HIDES & SKINS	15,342	10,445	28,160	16,717	12,818	6,272	12,818	6,272
Skins of sheep, goats, and small animals	11,946	4,451	13,899	6,320	1,953	1,869	1,953	1,869
HORNS	825	770	1,000	587	175	133	175	133
LAC	56	41	23	2	33	39	33	39
Do, dya	8,203	6,139	8,597	5,229	3,364	910	3,364	910
Do, shell	15,350	4,675	8,059	2,700	7,291	1,975	7,291	1,975
Do, stick and other kinds	1,237	2,490	1,341	2,220	104	730	104	730
LEATHER	2,662	2,221	1,701	2,618	441	397	441	397
Do, manufactured	14,717	12,787	12,409	12,518	2,308	269	2,308	269
Liquors	975	595	943	512	32	4	32	4
META	1,37,232	22,570	1,38,413	22,921	1,181	3,051	1,181	3,051
Minerals	25,674	18,683	24,746	22,293	928	1,472	928	1,472
METALS AND MANUFACTURES	87,712	47,295	74,543	43,842	13,170	3,453	13,170	3,453
Brass and copper	6,658	5,473	5,507	5,451	1,151	22	1,151	22
Iron	25,016	18,494	35,301	15,376	10,285	2,968	10,285	2,968
Other metals	48,498	28,132	34,000	28,095	14,403	9,204	14,403	9,204
Oil	1,911	2,432	2,114	2,320	203	888	203	888
Opium	27,959	17,959	21,510	11,647	6,449	6,312	6,449	6,312
Paints and colours	7,835	6,394	6,905	5,388	951	1,006	951	1,006
PROVISIONS	2,81,609	4,321	2,93,511	4,771	11,902	34,112	11,902	34,112
Railway materials, Construction Account	2,93,761	1,00,923	2,40,846	86,789	52,915	49,529	52,915	49,529
Do, ditto, Foreign	5,93,238	1,27,593	5,23,773	1,06,624	69,515	20,969	69,515	20,969
SALT	50,247	23,785	72,261	28,884	22,014	4,099	22,014	4,099
SALTPETRE, &c.	16,517	6,350	16,204	6,115	313	234	313	234
Other saline substances	5,81,545	1,74,238	10,22,235	3,11,818	4,40,680	1,37,580	4,40,680	1,37,580
SEEDS	1,76,311	40,307	2,93,491	70,997	1,16,880	30,690	1,16,880	30,690
Oil-seeds	10,382	2,548	4,932	568	5,450	1,980	5,450	1,980
Do, or gingelly	8,65,637	40,946	2,03,737	47,506	1,56,131	58,700	1,56,131	58,700
Other oilseeds	8,724	2,043	5,264	1,018	3,460	970	3,460	970
Indigo seed	60,464	26,594	20,704	24,684	39,760	1,910	39,760	1,910
Tea seed	1,784	4,049	1,649	977	1,135	72	1,135	72
Other kinds	280	100	353	256	73	98	73	98
SILK	15,772	11,000	23,519	18,100	7,747	6,220	7,747	6,220
Do, manufactured (European)	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Do, ditto (Indian)	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Spices	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Stone and marble	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
SUGAR	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Sugar, refined	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Do, unrefined	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Tea, Indian	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Do, Foreign	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
TOBACCO	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Timber	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Firewood	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Wool, raw	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Do, manufactured (European)	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Do, manufactured (Indian)	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Wool, manufactured (Indian)	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Shawls	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Other articles of merchandise	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Bones	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Porcelain	2,01,772	2,93,772	2,93,772	2,93,772	0	0	0	0
Total	89,24,095	24,07,290	1,03,03,394	27,73,259	14,491,303	3,666,969	14,491,303	3,666,969

General remarks on the fluctuation of principal staples carried over the East Indian Railway during four weeks ended 24th May 1890.

INCREASES.

Cotton.—The increase in this staple is in continuation of that reported in previous months.

Pieces-goods.—This increase was chiefly in despatches from Howrah to important receiving stations.

Gram and Pulses.—The improvement under this head was in despatches of gram, rahar, khasari, massoor, and peas from certain stations on the Dinapur district to Howrah for local consumption and export. There were also increases in despatches from Manhar, Cawnpore, and Sihora Road to Howrah, Agra, and to stations on the Great Indian Peninsula Railway.

Opium.—This is a continuation of the increase reported for April 1890.

Railway Material, Foreign.—The increase was chiefly in despatches of permanent-way material from Howrah for the Delhi-Umballa-Kalka Railway.

Salt.—This increase was chiefly in receipts of country salt at Agra from the Bombay, Baroda and Central India Railway for stations below Cawnpore; and in short lead traffic from *via* Hathras to *via* Aligarh, and from *via* Delhi to *via* Ghaziabad.

Bones.—Chiefly in despatches from Digba Ghat, Agra, *via* Moghalsarai and *via* Manikpore to Bally and Chitpore.

DECREASES.

Coal and Coke.—There was an increase in the weight of coal booked upwards for Foreign Railways, but this was more than counterbalanced by a heavy decrease in the downward traffic, owing principally to absence of demand for export.

Gunny.—Due to small export of country produce, viz., wheat, seeds, rice, &c.

Wheat.—The heavy falling off in this staple was chiefly in long distance despatches from the North-Western Railway *via* Ghaziabad and the Oudh and Rohilkhand Railway *via* Moghalsarai to Howrah, due to absence of demand for export to Europe and to prices up-country being unfavourable to buyers.

Rice (husked and unhusked).—This is a continuation of the falling off reported in previous months, and was due to large despatches having been made last year from stations on the "A" and "R" districts to stations on "B" district and the Tirhoot State Railway.

Other rain and spring crops.—The decrease under this head was chiefly in despatches of oats and other grains from Bhagalpore, Patna, and a few adjacent stations on the "B" district to Howrah and to stations on the Tirhoot and the Patna-Gya State Railways.

Government stores.—The falling off under this head was chiefly in ordnance stores despatched from Howrah and Cawnpore to Allahabad Fort last year.

Hides and skins.—This is a continuation of the decrease reported in previous months, and was due to supplies being scarce.

Brass and copper.—Due to the markets up-country being overstocked.

Seeds.—The falling off under this head was chiefly in linseed from the Oudh and Rohilkhand and the Bengal and the North-Western Railways to Howrah for export. Owing to the rise in exchange, business in Calcutta was very much retarded, stock being held back for higher prices.

Sugar (refined and unrefined).—The heavy decrease in weight carried was chiefly in despatches from stations on the Shahabad district to Howrah, Agra and to stations on the Great Indian Peninsula and North-Western Railways; also in short lead despatches from *via* Aligarh to Agra and to stations on the Bombay, Baroda and Central India Railway passing Hathras Junction.

Tobacco.—Chiefly in despatches from Barh and the Tirhoot State Railway *via* Mokameh Ghat, to stations up-country where the markets are said to have large stocks.

N. ST. L. CARTER, Traffic Manager.

TRAFFIC MANAGER'S OFFICE, CALCUTTA, the 17th June 1890.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 14th June 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	267,303	2,50,474 7 0	22,36,975 20	5,00,908 0 0	21,732 3 0	7,87,612 30 0	64,544½	91,692	1,56,236½
Or per mile of railway ...	168 2 0	168 2 0	14 3 11	333 13 10	14 3 11	516 3 9	...	...	...
For previous 23 weeks of half-year ...	6,033,931	60,35,132 14 0	5,90,79,680 30	1,30,72,694 0 0	4,71,359 10 9	2,00,97,636 13 0	1,504,224½	2,224,054½	3,728,279
Total for 24 weeks ...	6,301,234	62,85,607 5 0	6,13,16,756 10	1,35,73,388 0 0	4,93,591 13 9	2,17,85,109 7 0	1,608,769½	2,315,750½	3,924,519½
COMPARISON.									
Total for corresponding week of previous year ...	313,154	2,98,005 14 10	28,45,000	...	18,939 7 6	9,61,114 5 1	63,896	100,937	174,833
Per mile of railway corresponding week of previous year ...	...	193 8 5	...	...	12 7 2	630 0 6	...	...	...
Total to corresponding date of previous year ...	6,481,764	69,95,848 9 3	6,80,59,700	...	4,18,789 9 4	2,24,61,485 13 11	1,566,770	2,408,902	3,975,672

* The decrease in coaching traffic is due to squares for the corresponding bathing festivals.

... having included receipts on account of "Snanjatra" and "Dashahara"

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 15TH JUNE 1889.			RECEIPTS FOR WEEK ENDING 14TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 15TH JUNE 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1890 TO 14TH JUNE 1890.			Total increase in 1890.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
1,525½	Rs. 9,61,114	650	1,525½	Rs. 7,87,613	516	1,525½	Rs. 1,03,35,608	616	1,525½	Rs. 66,16,612	575	...	7,18,000

PATNA GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 14th June 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. L.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	12,942	5,517 4 0	45,229 38	2,737 13 0	44 9 0	8,499 12 0	795	891	1,596
Or per mile of railway	224	95 13 3	787 0	47 13 10	0 12 6	148 0 7	.....	.....	.....
For previous 24 weeks of half-year	319,003	1,29,718 5 0	11,22,026 38	7,583 7 0	1,059 15 0	2,33,392 0 0	37,126	17,150	54,276
Total for 24 weeks	332,007	1,29,403 7 0	11,73,324 24	75,324 6 0	1,103 5 0	2,41,892 5 0	37,904	17,051	54,955
COMPARISON.									
Total for corresponding week of previous year	11,477	5,397 12 7	72,051 29	2,319 9 0	48 46 3	8,565 10 10	894	1,003	2,097
Per mile of railway corresponding week of previous year	201	93 13 11	1,259 0	39 0 7	0 13 6	149 12 0	.....	.....	.....
Total to corresponding date of previous year	237,174	1,20,219 11 10	11,23,040 0	63,236 8 0	1,634 9 9	2,33,601 13 7	40,758	18,451	59,209

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 14th JUNE 1890.			RECEIPTS FOR WEEK ENDING 18th JUNE 1890.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 14th JUNE 1890.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 14th JUNE 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	5,508	150	57½	5,500	149	57½	97,497	152	57½	1,13,262	180	15,855	.....

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 14th June 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. L.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	10,537	4,916 10 0	8,978 0	279 4 0	8 0 0	5,203 12 0	904	64	968
Or per mile of railway	.....	222 6 7	.....	12 8 10	0 5 0	235 4 2	.....	.....	.....
For previous 24 weeks of half-year	317,403	1,20,540 6 0	8,42,333 20	11,048 13 0	231 4 0	1,47,799 11 0	30,454	2,353	32,807
Total for 24 weeks	326,720	1,41,382 0 0	8,54,711 50	11,227 0 0	219 4 0	1,53,035 10 0	31,258	2,417	33,675
COMPARISON.									
Total for corresponding week of previous year	24,004	6,416 12 6	4,090 10	524 1 0	12 4 3	7,228 4 5	817	51	868
Per mile of railway corresponding week of previous year	.....	288 2 7	.....	27 7 1	0 5 10	328 2 0	.....	.....	.....
Total to corresponding date of previous year	530,603	1,44,502 12 0	.....	.....	122 0 9	1,53,373 14 9	32,007	1,451	33,458

Approximate Statement of gross receipts of the Tarkessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 14th JUNE 1890.			RECEIPTS FOR WEEK ENDING 18th JUNE 1890.			TOTAL RECEIPTS FROM 1st APRIL 1890 TO 14th JUNE 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	7,206	320	22½	6,256	280	22½	71,397	319	7,206	485

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. R. P. AND D. AND ADAM-REHAR SECTIONS.)

Approximate Return of Traffic for week ending 5th June 1890, on 707 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other services (including parcels, etc.)	Total Receipts.	TRAFFIC TRADING-MILES RUN.		
	Number of passengers.	Combined Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	128,440	Rs. 4,170 0 0	1,10,000 0	7,660 0 0	2,200 0 0	17,430 0 0	12,730	2,200	14,930
Per mile of railway	182	58 0 0	1,550 0 0	106 0 0	31 0 0	247 0 0	182	35 0 0	217 0 0
Previous 26 weeks of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
Total for 26 weeks	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
Comparison:									
For corresponding week of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
For corresponding week of 1890	128,440	Rs. 4,170 0 0	1,10,000 0	7,660 0 0	2,200 0 0	17,430 0 0	12,730	2,200	14,930
Per mile of railway	182	58 0 0	1,550 0 0	106 0 0	31 0 0	247 0 0	182	35 0 0	217 0 0
Previous 26 weeks of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036

* Assessed up to week ending 5th June 1890.
 † Including receipts from
 ‡ Including receipts from
 § Including receipts from

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 5TH JUNE 1890.			RECEIPTS FOR WEEK ENDING 5TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 5TH JUNE 1890.			Total Receipts in 1890.		Total Receipts in 1889.	
From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Coaching.	From Merchandise.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
128,440	4,170	0	1,10,000	7,660	2,200	17,430	12,730	2,200	17,430	12,730	2,200	12,730	2,200	12,730	2,200

* Assessed up to week ending 5th June 1890.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ending 7th June 1890, on 127 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other services (including parcels, etc.)	Total Receipts.	TRAFFIC TRADING-MILES RUN.		
	Number of passengers.	Combined Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week	11,000	Rs. 11,000 0 0	11,000 0	11,000 0 0	1,000 0 0	12,000 0 0	11,000	1,000	12,000
Per mile of railway	86	86 0 0	86 0 0	86 0 0	7 0 0	93 0 0	86	7 0 0	93 0 0
Previous 26 weeks of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
Total for 26 weeks	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
Comparison:									
For corresponding week of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036
For corresponding week of 1890	11,000	Rs. 11,000 0 0	11,000 0	11,000 0 0	1,000 0 0	12,000 0 0	11,000	1,000	12,000
Per mile of railway	86	86 0 0	86 0 0	86 0 0	7 0 0	93 0 0	86	7 0 0	93 0 0
Previous 26 weeks of 1889	1,470,362	10,82,000 0 0	1,75,00,000 0	22,70,150 0 0	6,85,000 0 0	30,35,300 0 0	1,47,036	2,20,000	1,69,036

* Assessed up to week ending 7th June 1890.
 † Including receipts from
 ‡ Including receipts from
 § Including receipts from

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			RECEIPTS FOR WEEK ENDING 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 7TH JUNE 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 7TH JUNE 1890.			Total Receipts in 1890.		Total Receipts in 1889.	
From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Mineral.	From Coaching.	From Merchandise.	From Coaching.	From Merchandise.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
11,000	11,000	0	11,000	11,000	0	12,000	11,000	0	12,000	11,000	0	12,000	11,000	12,000	11,000

* Assessed up to week ending 7th June 1890.

BACCA STATE RAILWAY.

Approximate Statement of Receipts and Expenditure for the week ending 24th May 1890, at 80 miles open.

Particulars.	Receipts.		Expenditure.		Balance.		Total.		
	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Total.
Total receipts for the week	1,200	0	0	0	1,200	0	1,200	0	1,200
Grain and other goods	1,200	0	0	0	1,200	0	1,200	0	1,200
Passengers	1,200	0	0	0	1,200	0	1,200	0	1,200
Freight	1,200	0	0	0	1,200	0	1,200	0	1,200
Other	1,200	0	0	0	1,200	0	1,200	0	1,200
Total expenditure for the week	1,200	0	0	0	1,200	0	1,200	0	1,200
Grain and other goods	1,200	0	0	0	1,200	0	1,200	0	1,200
Passengers	1,200	0	0	0	1,200	0	1,200	0	1,200
Freight	1,200	0	0	0	1,200	0	1,200	0	1,200
Other	1,200	0	0	0	1,200	0	1,200	0	1,200
Total receipts for the week	1,200	0	0	0	1,200	0	1,200	0	1,200
Grain and other goods	1,200	0	0	0	1,200	0	1,200	0	1,200
Passengers	1,200	0	0	0	1,200	0	1,200	0	1,200
Freight	1,200	0	0	0	1,200	0	1,200	0	1,200
Other	1,200	0	0	0	1,200	0	1,200	0	1,200

* All receipts were made on 24th May 1890.

FINANCIAL YEAR.

Approximate Statement of Receipts and Expenditure for the week ending 24th May 1890.

Receipts for the week ending 24th May 1890.		Expenditure for the week ending 24th May 1890.		Total Receipts for the week ending 24th May 1890.		Total Expenditure for the week ending 24th May 1890.		Balance.	
Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0
1,200	0	1,200	0	1,200	0	1,200	0	1,200	0

* All receipts were made on 24th May 1890.

DAKSHIN HIMALAYAN RAILWAY COMPANY, LIMITED.

Rs.

Approximate receipts for week ending 24th May 1890.

12,000

Corresponding period of 1889.

11,200

Decrease.

800

Receipts per mile for week ending 24th May 1890.

Rs. 150

Corresponding period of 1889.

140

Increase.

10

Receipts from 1st January to 24th May 1890.

2,00,000

Corresponding period of 1889.

1,90,000

Decrease.

10,000

DAKSHIN HIMALAYAN RAILWAY COMPANY, LIMITED.

Rs.

Approximate receipts for week ending 24th May 1890.

12,000

Corresponding period of 1889.

11,200

Decrease.

800

Receipts per mile for week ending 24th May 1890.

Rs. 150

Corresponding period of 1889.

140

Increase.

10

Receipts from 1st January to 24th May 1890.

2,00,000

Corresponding period of 1889.

1,90,000

Decrease.

10,000